

515	520	525
Ser Leu Pro Arg Pro Leu Ser Pro Thr Lys Leu Thr Pro Ile Val His		
530	535	540
Ser Pro Leu Arg Tyr Gln Ser Asp Ala Asp Leu Glu Ala Leu Arg Arg		
545	550	555
Lys Leu Ala Asn Ala Pro Arg Pro Leu Lys Lys Arg Ser Ser Ile Thr		
565	570	575
Glu Pro Glu Gly Pro Gly Gly Pro Asn Ile Gln Lys Leu Leu Tyr Gln		
580	585	590
Arg Phe Asn Thr Leu Ala Gly Gly Met Glu Gly Thr Pro Phe Tyr Gln		
595	600	605
Pro Ser Pro Ser Gln Asp Phe Met Val Thr Leu Ala Asp Val Asp Asn		
610	615	620
Gly Asn Thr Asn Ala Asn Gly Asn Leu Glu Glu Leu Pro Pro Ala Gln		
625	630	635
Pro Thr Ala Pro Leu Pro Ala Glu Pro Ala Pro Ser Ser Asp Ala Asn		
645	650	655
Asp Asn Glu Leu Pro Ser Pro Glu Pro Glu Glu Leu Ile Cys Pro Gln		
660	665	670
Thr Thr His Gln Thr Ala Glu Pro Ala Glu Asp Asn Asn Asn Val		
675	680	685
Ala Thr Val Pro Thr Thr Glu Gln Ile Pro Ser Pro Val Ala Glu Ala		
690	695	700
Pro Ser Pro Gly Glu Glu Gln Val Pro Pro Ala Pro Leu Pro Pro Ala		
705	710	715
Ser His Pro Pro Ala Thr Ser Thr Asn Lys Arg Thr Asn Leu Lys Lys		
725	730	735
Pro Asn Ser Glu Arg Thr Gly His Gly Leu Arg Val Arg Phe Asn Pro		
740	745	750
Leu Ala Leu Leu Leu Asp Ala Ser Leu Glu Gly Glu Phe Asp Leu Val		
755	760	765
Gln Arg Ile Ile Tyr Glu Val Glu Asp Pro Ser Lys Pro Asn Asp Glu		
770	775	780
Gly Ile Thr Pro Leu His Asn Ala Val Cys Ala Gly His His His Ile		
785	790	795
Val Lys Phe Leu Leu Asp Phe Gly Val Asn Val Asn Ala Ala Asp Ser		
805	810	815
Asp Gly Trp Thr Pro Leu His Cys Ala Ala Ser Cys Asn Ser Val His		
820	825	830
Leu Cys Lys Gln Leu Val Glu Ser Gly Ala Ala Ile Phe Ala Ser Thr		
835	840	845
Ile Ser Asp Ile Glu Thr Ala Ala Asp Lys Cys Glu Glu Met Glu Glu		
850	855	860
Gly Tyr Ile Gln Cys Ser Gln Phe Leu Tyr Gly Val Gln Glu Lys Leu		
865	870	875
Gly Val Met Asn Lys Gly Val Ala Tyr Ala Leu Trp Asp Tyr Glu Ala		
885	890	895
Gln Asn Ser Asp Glu Leu Ser Phe His Glu Gly Asp Ala Leu Thr Ile		
900	905	910
Leu Arg Arg Lys Asp Glu		
915	918	

<210> 3436

<211> 868

<212> PRT

<213> Homo sapiens

<400> 3436

Gly Ser Thr His Ala Ser Glu Lys Met Lys Thr Gly Arg Ser Ala Leu
1 5 10 15
Val Val Thr Asp Thr Gly Asp Met Ser Val Leu Asn Ser Pro Arg His

5128

530	535	540
Ser Ile Glu Val Pro	Ser Pro Ser Gln Leu Asp	Gln Ser Val Leu Glu
545	550	555
Ala Leu Pro Pro Asp	Leu Arg Glu Gln Val	Glu Gln Val Cys Ala Val
565	570	575
Gln Gln Ala Glu Ser	His Gly Asp Lys Lys	Lys Glu Pro Val Asn Gly
580	585	590
Cys Asn Thr Gly Ile	Leu Pro Gln Pro Val	Gly Thr Val Leu Leu Gln
595	600	605
Ile Pro Glu Pro Gln	Glu Ser Asn Ser Asp	Ala Gly Ile Asn Leu Ile
610	615	620
Ala Leu Pro Ala Phe	Ser Gln Val Asp Pro	Glu Val Phe Ala Ala Leu
625	630	635
Pro Ala Glu Leu Gln	Arg Glu Leu Lys Ala	Ala Tyr Asp Gln Arg Gln
645	650	655
Arg Gln Gly Glu Asn	Ser Thr His Gln Gln	Ser Ala Ser Ala Ser Val
660	665	670
Pro Lys Asn Pro Leu	Leu His Leu Lys Ala	Ala Val Lys Glu Lys Lys
675	680	685
Arg Asn Lys Lys Lys	Lys Thr Ile Gly Ser	Pro Lys Arg Ile Gln Ser
690	695	700
Pro Leu Asn Asn Lys	Leu Leu Asn Ser Pro	Ala Lys Thr Leu Pro Gly
705	710	715
Ala Cys Gly Ser Pro	Gln Lys Leu Ile Asp	Gly Phe Leu Lys His Glu
725	730	735
Gly Pro Pro Ala Glu	Lys Pro Leu Glu Glu	Leu Ser Ala Ser Thr Ser
740	745	750
Gly Val Pro Gly Leu	Ser Ser Leu Gln Ser	Asp Pro Ala Gly Cys Val
755	760	765
Arg Pro Pro Ala Pro	Asn Leu Ala Gly Ala	Val Glu Phe Asn Asp Val
770	775	780
Lys Thr Leu Leu Arg	Glu Trp Ile Thr Thr	Ile Ser Asp Pro Met Glu
785	790	795
Glu Asp Ile Leu Gln	Val Val Lys Tyr Cys	Thr Asp Leu Ile Glu Glu
805	810	815
Lys Asp Leu Glu Lys	Leu Asp Leu Val Ile	Lys Tyr Met Lys Arg Leu
820	825	830
Met Gln Gln Ser Val	Glu Ser Val Trp Asn	Met Ala Phe Asp Phe Ile
835	840	845
Leu Asp Asn Val Gln	Val Val Leu Gln Gln	Thr Tyr Gly Ser Thr Leu
850	855	860
Lys Val Thr		
865	867	

<210> 3437

<211> 1339

<212> PRT

<213> Homo sapiens

<400> 3437

Ser Leu Leu Arg Leu	Leu Lys Ala Gln Trp	Gly Ser Ser Gly Ala Ala
1	5	10
Ser Glu Pro Val Val	Leu Gly Glu Glu Gly	Cys Gly Phe Pro Ser Thr
20	25	30
Asn Glu Tyr Pro Asp	Leu Glu Glu Glu Arg	Ala Thr Tyr Pro Gln Glu
35	40	45
Glu Asp Arg Phe Leu	Thr Pro Gly Arg Ala	Gln Leu Leu Trp Ser Pro
50	55	60
Trp Ser Pro Leu Asp	Gln Glu Glu Ala Cys	Ala Ser Arg Gln Leu His
65	70	75
Ser Leu Ala Ser Phe	Ser Thr Val Thr Ala	Arg Arg Asn Pro Leu His

				85					90					95			
Asn	Pro	Trp	Gly	Met	Glu	Leu	Ala	Ala	Ser	Glu	Asn	Thr	Asp	Ser	Pro		
			100					105					110				
Ser	Pro	Arg	Pro	Leu	Arg	Pro	Gly	Val	Thr	Leu	Pro	Pro	Gly	Ala	Leu		
		115					120						125				
Thr	Met	Asn	Thr	Lys	Asp	Thr	Thr	Glu	Val	Ala	Glu	Asn	Ser	His	His		
	130					135						140					
Leu	Lys	Ile	Phe	Leu	Pro	Lys	Lys	Leu	Leu	Glu	Cys	Leu	Pro	Arg	Cys		
145					150					155					160		
Pro	Leu	Leu	Pro	Pro	Glu	Arg	Leu	Arg	Trp	Asn	Thr	Asn	Glu	Glu	Ile		
			165					170					175				
Ala	Ser	Tyr	Leu	Ile	Thr	Phe	Glu	Lys	His	Asp	Glu	Trp	Leu	Ser	Cys		
			180					185					190				
Ala	Pro	Lys	Thr	Arg	Pro	Gln	Asn	Gly	Ser	Ile	Ile	Leu	Tyr	Asn	Arg		
	195					200						205					
Lys	Lys	Val	Lys	Tyr	Arg	Lys	Asp	Gly	Tyr	Leu	Trp	Lys	Lys	Arg	Lys		
	210					215					220						
Asp	Gly	Lys	Thr	Thr	Arg	Glu	Asp	His	Met	Lys	Leu	Lys	Val	Gln	Gly		
225					230					235					240		
Met	Glu	Cys	Leu	Tyr	Gly	Cys	Tyr	Val	His	Ser	Ser	Ile	Val	Pro	Thr		
			245					250					255				
Phe	His	Arg	Arg	Cys	Tyr	Trp	Leu	Leu	Gln	Asn	Pro	Asp	Ile	Val	Leu		
			260					265					270				
Val	His	Tyr	Leu	Asn	Val	Pro	Ala	Leu	Glu	Asp	Cys	Gly	Lys	Gly	Cys		
	275						280					285					
Ser	Pro	Ile	Phe	Cys	Ser	Ile	Ser	Ser	Asp	Arg	Arg	Glu	Trp	Leu	Lys		
	290					295					300						
Trp	Ser	Arg	Glu	Glu	Leu	Leu	Gly	Gln	Leu	Lys	Pro	Met	Phe	His	Gly		
305					310					315					320		
Ile	Lys	Trp	Ser	Cys	Gly	Asn	Gly	Thr	Glu	Glu	Phe	Ser	Val	Glu	His		
			325					330						335			
Leu	Val	Gln	Gln	Ile	Leu	Asp	Thr	His	Pro	Thr	Lys	Pro	Ala	Pro	Arg		
		340						345					350				
Thr	His	Ala	Cys	Leu	Cys	Ser	Gly	Gly	Leu	Gly	Ser	Gly	Ser	Leu	Thr		
	355						360					365					
His	Lys	Cys	Ser	Ser	Thr	Lys	His	Arg	Ile	Ile	Ser	Pro	Lys	Val	Glu		
	370					375					380						
Pro	Arg	Ala	Leu	Thr	Leu	Thr	Ser	Ile	Pro	His	Pro	His	Pro	Pro	Glu		
385					390					395					400		
Pro	Pro	Pro	Leu	Ile	Ala	Pro	Leu	Pro	Pro	Glu	Leu	Pro	Lys	Ala	His		
			405					410					415				
Thr	Ser	Pro	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Ser	Gly	Phe	Ala	Glu		
		420						425					430				
Pro	Leu	Glu	Ile	Arg	Pro	Ser	Pro	Pro	Thr	Ser	Arg	Gly	Gly	Ser	Ser		
	435						440					445					
Arg	Gly	Gly	Thr	Ala	Ile	Leu	Leu	Leu	Thr	Gly	Leu	Glu	Gln	Arg	Ala		
	450					455				460							
Gly	Gly	Leu	Thr	Pro	Thr	Arg	His	Leu	Ala	Pro	Gln	Ala	Asp	Pro	Arg		
465					470				475					480			
Pro	Ser	Met	Ser	Leu	Ala	Val	Val	Val	Gly	Thr	Glu	Pro	Ser	Ala	Pro		
			485					490					495				
Pro	Ala	Pro	Pro	Ser	Pro	Ala	Phe	Asp	Pro	Asp	Arg	Phe	Leu	Asn	Ser		
		500					505						510				
Pro	Gln	Arg	Gly	Gln	Thr	Tyr	Gly	Gly	Gly	Gln	Gly	Val	Ser	Pro	Asp		
	515						520					525					
Phe	Pro	Glu	Ala	Glu	Ala	Ala	His	Thr	Pro	Cys	Ser	Ala	Leu	Glu	Pro		
	530				535						540						
Ala	Ala	Ala	Leu	Glu	Pro	Gln	Ala	Ala	Ala	Arg	Gly	Pro	Pro	Pro	Gln		
545					550				555						560		
Ser	Val	Ala	Gly	Gly	Arg	Arg	Gly	Asn	Cys	Phe	Phe	Ile	Gln	Asp	Asp		
			565					570					575				
Asp	Ser	Gly	Glu	Glu	Leu	Lys	Gly	His	Gly	Ala	Ala	Pro	Pro	Ile	Pro		
		580						585					590				
Ser	Pro	Pro	Pro	Ser	Pro	Pro	Pro	Ser	Pro	Ala	Pro	Leu	Glu	Pro	Ser		

595	600	605
Ser Arg Val Gly Arg Gly Glu	Ala Leu Phe Gly Gly	Pro Val Gly Ala
610	615	620
Ser Glu Leu Glu Pro Phe Ser	Leu Ser Ser Phe Pro	Asp Leu Met Gly
625	630	635
Glu Leu Ile Ser Asp Glu Ala	Pro Ser Ile Pro Ala	Pro Thr Pro Gln
645	650	655
Leu Ser Pro Ala Leu Ser Thr	Ile Thr Asp Phe Ser	Pro Glu Trp Ser
660	665	670
Tyr Pro Glu Gly Gly Val Lys	Val Leu Ile Thr Gly	Pro Trp Thr Glu
675	680	685
Ala Ala Glu His Tyr Ser Cys	Val Phe Asp His Ile	Ala Val Pro Ala
690	695	700
Ser Leu Val Gln Pro Gly Val	Leu Arg Cys Tyr Cys	Pro Ala His Glu
705	710	715
Val Gly Leu Val Ser Leu Gln	Val Ala Gly Arg Glu	Gly Pro Leu Ser
725	730	735
Ala Ser Val Leu Phe Glu Tyr	Arg Ala Arg Arg Phe	Leu Ser Leu Pro
740	745	750
Ser Thr Gln Leu Asp Trp Leu	Ser Leu Asp Asp Asn	Gln Phe Arg Met
755	760	765
Ser Ile Leu Glu Arg Leu Glu	Gln Met Glu Lys Arg	Met Ala Glu Ile
770	775	780
Ala Ala Ala Gly Gln Val Pro	Cys Gln Gly Pro Asp	Ala Pro Pro Val
785	790	795
Gln Asp Glu Gly Gln Gly Pro	Gly Phe Glu Ala Arg	Val Val Val Leu
805	810	815
Val Glu Ser Met Ile Pro Arg	Ser Thr Trp Lys Gly	Pro Glu Arg Leu
820	825	830
Ala His Gly Ser Pro Phe Arg	Gly Met Ser Leu Leu	His Leu Ala Ala
835	840	845
Ala Gln Gly Tyr Ala Arg Leu	Ile Glu Thr Leu Ser	Gln Trp Arg Ser
850	855	860
Val Glu Thr Gly Ser Leu Asp	Leu Glu Gln Glu Val	Asp Pro Leu Asn
865	870	875
Val Asp His Phe Ser Cys Thr	Pro Leu Met Trp Ala	Cys Ala Leu Gly
885	890	895
His Leu Glu Ala Ala Val Leu	Leu Phe Arg Trp Asn	Arg Gln Ala Leu
900	905	910
Ser Ile Pro Asp Ser Leu Gly	Arg Leu Pro Leu Ser	Val Ala His Ser
915	920	925
Arg Gly His Val Arg Leu Ala	Arg Cys Leu Glu Glu	Leu Gln Arg Gln
930	935	940
Glu Pro Ser Val Glu Pro Pro	Phe Ala Leu Ser Pro	Pro Ser Ser Ser
945	950	955
Pro Asp Thr Gly Leu Ser Ser	Val Ser Ser Pro Ser	Glu Leu Ser Asp
965	970	975
Gly Thr Phe Ser Val Thr Ser	Ala Tyr Ser Ser Ala	Pro Asp Gly Ser
980	985	990
Pro Pro Pro Ala Pro Leu Pro	Ala Ser Glu Met Thr	Met Glu Asp Met
995	1000	1005
Ala Pro Gly Gln Leu Ser Ser	Gly Val Pro Glu Ala	Pro Leu Leu Leu
1010	1015	1020
Met Asp Tyr Glu Ala Thr Asn	Ser Lys Gly Pro Leu	Ser Ser Leu Pro
1025	1030	1035
Ala Leu Pro Pro Ala Ser Asp	Asp Gly Ala Pro Glu	Asp Ala Asp
1045	1050	1055
Ser Pro Gln Ala Val Asp Val	Ile Pro Val Asp Met	Ile Ser Leu Ala
1060	1065	1070
Lys Gln Ile Ile Glu Ala Thr	Pro Glu Arg Ile Lys	Arg Glu Asp Phe
1075	1080	1085
Val Gly Leu Pro Glu Ala Gly	Ala Ser Met Arg Glu	Arg Thr Gly Ala
1090	1095	1100
Val Gly Leu Ser Glu Thr Met	Ser Trp Leu Ala Ser	Tyr Leu Glu Asn

1105 1110 1115 1120
 Val Asp His Phe Pro Ser Ser Thr Pro Pro Ser Glu Leu Pro Phe Glu
 1125 1130 1135
 Arg Gly Arg Leu Gly Leu Ser Leu Thr Ala Pro Ser Trp Ala Glu Phe
 1140 1145 1150
 Leu Ser Cys Ile Pro Pro Val Gly Lys Ile Gly Lys Leu Ile Phe Ala
 1155 1160 1165
 Leu Leu Thr Leu Ser Asp Gln Glu Gln Arg Glu Leu Tyr Glu Ala Ala
 1170 1175 1180
 Arg Val Ile Gln Thr Ala Phe Arg Lys Tyr Lys Gly Arg Arg Leu Lys
 1185 1190 1195 1200
 Glu Gln Gln Glu Val Ala Ala Ala Val Ile Gln Arg Cys Tyr Arg Lys
 1205 1210 1215
 Tyr Lys Gln Leu Thr Trp Ile Ala Leu Lys Phe Ala Leu Tyr Lys Lys
 1220 1225 1230
 Met Thr Gln Ala Ala Ile Leu Ile Gln Ser Lys Phe Arg Ser Tyr Tyr
 1235 1240 1245
 Glu Gln Lys Arg Phe Gln Gln Ser Arg Arg Ala Ala Val Leu Ile Gln
 1250 1255 1260
 Gln His Tyr Arg Ser Tyr Arg Arg Arg Pro Gly Pro Pro His Arg Thr
 1265 1270 1275 1280
 Ser Ala Thr Leu Pro Ala Arg Asn Lys Gly Ser Phe Leu Thr Lys Lys
 1285 1290 1295
 Gln Asp Gln Ala Ala Arg Lys Ile Met Arg Phe Leu Arg Arg Cys Arg
 1300 1305 1310
 His Arg Met Arg Glu Leu Lys Gln Asn Gln Glu Leu Glu Gly Leu Pro
 1315 1320 1325
 Gln Pro Gly Leu Ala Thr
 1330 1334

<210> 3438
 <211> 711
 <212> PRT
 <213> Homo sapiens

<400> 3438
 Phe Gly Arg Leu Leu Trp Gly Thr Ala Phe Lys Ser Trp Lys Met Lys
 1 5 10 15
 Ala Pro Ile Pro His Leu Ile Leu Leu Tyr Ala Thr Phe Thr Gln Ser
 20 25 30
 Leu Lys Val Val Thr Lys Arg Gly Ser Ala Asp Gly Cys Thr Asp Trp
 35 40 45
 Ser Ile Asp Ile Lys Lys Tyr Gln Val Leu Val Gly Glu Pro Val Arg
 50 55 60
 Ile Lys Cys Ala Leu Phe Tyr Gly Tyr Ile Arg Thr Asn Tyr Ser Leu
 65 70 75 80
 Ala Gln Ser Ala Gly Leu Ser Leu Met Trp Tyr Lys Ser Ser Gly Pro
 85 90 95
 Gly Asp Phe Glu Glu Pro Ile Ala Phe Asp Gly Ser Arg Met Ser Lys
 100 105 110
 Glu Glu Asp Ser Ile Trp Phe Arg Pro Thr Leu Leu Gln Asp Ser Gly
 115 120 125
 Leu Tyr Ala Cys Val Ile Arg Asn Ser Thr Tyr Cys Met Lys Val Ser
 130 135 140
 Ile Ser Leu Thr Val Gly Glu Asn Asp Thr Gly Leu Cys Tyr Asn Ser
 145 150 155 160
 Lys Met Lys Tyr Phe Glu Lys Ala Glu Leu Ser Lys Ser Lys Glu Ile
 165 170 175
 Ser Cys Arg Asp Ile Glu Asp Phe Leu Leu Pro Thr Arg Glu Pro Glu
 180 185 190
 Ile Leu Trp Tyr Lys Glu Cys Arg Thr Lys Thr Trp Arg Pro Ser Ile

195	200	205
Val Phe Lys Arg Asp Thr	Leu Leu Ile Arg Glu	Val Arg Glu Asp Asp
210	215	220
Ile Gly Asn Tyr Thr Cys	Glu Leu Lys Tyr Gly	Gly Phe Val Val Arg
225	230	235
Arg Thr Thr Glu Leu Thr	Val Thr Ala Pro Leu	Thr Asp Lys Pro Pro
245	250	255
Lys Leu Leu Tyr Pro Met	Glu Ser Lys Leu Thr	Ile Gln Glu Thr Gln
260	265	270
Leu Gly Asp Ser Ala Asn	Leu Thr Cys Arg Ala	Phe Phe Gly Tyr Ser
275	280	285
Gly Asp Val Ser Pro Leu	Ile Tyr Trp Met Lys	Gly Glu Lys Phe Ile
290	295	300
Glu Asp Leu Asp Glu Asn	Arg Val Trp Glu Ser	Asp Ile Lys Ile Leu
305	310	315
Lys Glu His Leu Gly Glu	Gln Glu Val Ser Ile	Ser Leu Ile Val Asp
325	330	335
Ser Val Glu Glu Gly Asp	Leu Gly Asn Tyr Ser	Cys Tyr Val Glu Asn
340	345	350
Gly Asn Gly Arg Arg His	Ala Ser Val Leu Leu	His Lys Arg Glu Leu
355	360	365
Met Tyr Thr Val Glu Leu	Ala Gly Gly Leu Gly	Ala Ile Leu Leu Leu
370	375	380
Leu Val Cys Leu Val Thr	Ile Tyr Lys Cys Tyr	Lys Ile Glu Ile Met
385	390	395
Leu Phe Tyr Arg Asn His	Phe Gly Ala Glu Glu	Leu Asp Gly Asp Asn
405	410	415
Lys Asp Tyr Asp Ala Tyr	Leu Ser Tyr Thr Lys	Val Asp Pro Asp Gln
420	425	430
Trp Asn Gln Glu Thr Gly	Glu Glu Glu Arg Phe	Ala Leu Glu Ile Leu
435	440	445
Pro Asp Met Leu Glu Lys	His Tyr Gly Tyr Lys	Leu Phe Ile Pro Asp
450	455	460
Arg Asp Leu Ile Pro Thr	Gly Thr Tyr Ile Glu	Asp Val Ala Arg Cys
465	470	475
Val Asp Gln Ser Lys Arg	Leu Ile Ile Val Met	Thr Pro Asn Tyr Val
485	490	495
Val Arg Arg Gly Trp Ser	Ile Phe Glu Leu Glu	Thr Arg Leu Arg Asn
500	505	510
Met Leu Val Thr Gly Glu	Ile Lys Val Ile Leu	Ile Glu Cys Ser Glu
515	520	525
Leu Arg Gly Ile Met Asn	Tyr Gln Glu Val Glu	Ala Leu Lys His Thr
530	535	540
Ile Lys Leu Leu Thr Val	Ile Lys Trp His Gly	Pro Lys Cys Asn Lys
545	550	555
Leu Asn Ser Lys Phe Trp	Lys Arg Leu Gln Tyr	Glu Met Pro Phe Lys
565	570	575
Arg Ile Glu Pro Ile Thr	His Glu Gln Ala Leu	Asp Val Ser Glu Gln
580	585	590
Gly Pro Phe Gly Glu Leu	Gln Thr Val Ser Ala	Ile Ser Met Ala Ala
595	600	605
Ala Thr Ser Thr Ala Leu	Ala Thr Ala His Pro	Asp Leu Arg Ser Thr
610	615	620
Phe His Asn Thr Tyr His	Ser Gln Met Arg Gln	Lys His Tyr Tyr Arg
625	630	635
Ser Tyr Glu Tyr Asp Val	Pro Pro Thr Gly Thr	Leu Pro Leu Thr Ser
645	650	655
Ile Gly Asn Gln His Thr	Tyr Cys Asn Ile Pro	Met Thr Leu Ile Asn
660	665	670
Gly Gln Arg Pro Gln Thr	Lys Ser Ser Arg Glu	Gln Asn Pro Asp Glu
675	680	685
Ala His Thr Asn Ser Ala	Ile Leu Pro Leu Leu	Pro Arg Glu Thr Ser
690	695	700
Ile Ser Ser Val Ile Trp		

705

710

<210> 3439
 <211> 597
 <212> PRT
 <213> Homo sapiens

<400> 3439
 Gly Pro Gly Asn Ser Ser Ile Leu Ile Gly Gly Gly His Leu Phe Leu
 1 5 10 15
 Ile Arg Ser Cys Leu Asn Leu Leu Leu Leu Asn Ser Lys Glu Asn Thr
 20 25 30
 Glu His Thr Met Ala Lys Lys Val Ala Val Ile Gly Ala Gly Val Ser
 35 40 45
 Gly Leu Ser Ser Ile Lys Cys Cys Val Asp Glu Asp Leu Glu Pro Thr
 50 55 60
 Cys Phe Glu Arg Ser Asp Asp Ile Gly Gly Leu Trp Lys Phe Thr Glu
 65 70 75 80
 Arg Gly Ser Ser Leu Ser Val Met Ile Trp Pro Leu Ala Leu Ser Leu
 85 90 95
 Leu Arg His Gly Gly Phe Cys Tyr Ser Asp Phe Pro Phe His Glu Asp
 100 105 110
 Tyr Pro Asn Phe Met Asn His Glu Lys Phe Trp Asp Tyr Leu Gln Glu
 115 120 125
 Phe Ala Glu His Phe Asp Leu Leu Lys Tyr Ile Gln Phe Lys Thr Thr
 130 135 140
 Val Cys Gly Ile Thr Lys Arg Pro Asp Phe Ser Glu Thr Gly Gln Trp
 145 150 155 160
 Asp Val Val Thr Glu Thr Glu Gly Lys Gln Asn Arg Ala Val Phe Asp
 165 170 175
 Ala Val Met Val Cys Thr Gly His Phe Leu Asn Pro His Leu Pro Leu
 180 185 190
 Glu Ala Phe Pro Gly Ile His Lys Phe Lys Gly Gln Ile Leu His Ser
 195 200 205
 Gln Glu Tyr Lys Ile Pro Glu Gly Phe Gln Gly Lys Arg Val Leu Val
 210 215 220
 Ile Gly Leu Gly Asn Thr Gly Gly Asp Ile Ala Val Glu Leu Ser Arg
 225 230 235 240
 Thr Ala Ala Gln Val Leu Leu Ser Thr Arg Thr Gly Thr Trp Val Leu
 245 250 255
 Gly Arg Ser Ser Asp Trp Gly Tyr Pro Tyr Asn Met Met Val Thr Arg
 260 265 270
 Arg Cys Cys Ser Phe Ile Ala Gln Val Leu Pro Ser Arg Phe Leu Asn
 275 280 285
 Trp Ile Gln Glu Arg Lys Leu Asn Lys Arg Phe Asn His Glu Asp Tyr
 290 295 300
 Gly Leu Ser Ile Thr Lys Gly Lys Lys Ala Lys Phe Ile Val Asn Asp
 305 310 315 320
 Glu Leu Pro Asn Cys Ile Leu Cys Gly Ala Ile Thr Met Lys Thr Ser
 325 330 335
 Val Ile Glu Phe Thr Glu Thr Ser Ala Val Phe Glu Asp Gly Thr Val
 340 345 350
 Glu Glu Asn Ile Asp Val Val Ile Phe Thr Thr Gly Tyr Thr Phe Ser
 355 360 365
 Phe Pro Phe Phe Glu Glu Pro Leu Lys Ser Leu Cys Thr Lys Lys Ile
 370 375 380
 Phe Leu Tyr Lys Gln Val Phe Pro Leu Asn Leu Glu Arg Ala Thr Leu
 385 390 395 400
 Ala Ile Ile Gly Leu Ile Gly Leu Lys Gly Ser Ile Leu Ser Gly Thr
 405 410 415
 Glu Leu Gln Ala Arg Trp Val Thr Arg Val Phe Lys Gly Leu Cys Lys

[illegible]

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<210> 3440
<211> 1178
<212> PRT
<213> Homo sapiens
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	<400> 3440														
Ile	Met	Pro	Cys	Gly	Ser	Ser	Arg	Leu	Leu	Arg	Gly	Cys	Trp	Thr	His
1				5					10					15	
Pro	Asn	Glu	Pro	Val	Ser	Asp	Leu	Ser	Tyr	Phe	Asp	Cys	Ile	Glu	Ser
			20					25					30		
Val	Met	Glu	Asn	Ser	Lys	Val	Leu	Gly	Glu	Ser	Met	Ala	Gly	Ile	Ser
		35					40					45			
Gln	Asn	Ala	Lys	Thr	Gly	Asp	Leu	Pro	Ala	Phe	Gly	Glu	Cys	Val	Gly
	50					55					60				
Ile	Ala	Ser	Lys	Ala	Leu	Cys	Gly	Leu	Thr	Glu	Ala	Ala	Ala	Gln	Ala
65					70					75					80
Ala	Tyr	Leu	Val	Gly	Ile	Phe	Asp	Pro	Asn	Ser	Gln	Ala	Gly	His	Gln
				85					90					95	
Gly	Leu	Val	Asp	Pro	Ile	Gln	Phe	Ala	Arg	Ala	Asn	Gln	Ala	Ile	Gln
			100					105					110		
Met	Ala	Cys	Gln	Asn	Leu	Val	Asp	Pro	Gly	Ser	Ser	Pro	Ser	Gln	Val
		115					120					125			
Leu	Ser	Ala	Ala	Thr	Ile	Val	Ala	Lys	His	Thr	Ser	Ala	Leu	Cys	Asn
	130					135					140				
Ala	Cys	Arg	Ile	Ala	Ser	Ser	Lys	Thr	Ala	Asn	Pro	Val	Ala	Lys	Arg
145					150					155					160
His	Phe	Val	Gln	Ser	Ala	Lys	Glu	Val	Ala	Asn	Ser	Thr	Ala	Asn	Leu
				165					170					175	
Val	Lys	Thr	Ile	Lys	Ala	Leu	Asp	Gly	Asp	Phe	Ser	Glu	Asp	Asn	Arg
			180					185					190		
Asn	Lys	Cys	Arg	Ile	Ala	Thr	Ala	Pro	Leu	Ile	Glu	Ala	Val	Glu	Asn
		195					200					205			
Leu	Thr	Ala	Phe	Ala	Ser	Asn	Pro	Glu	Phe	Val	Ser	Ile	Pro	Ala	Gln
	210					215					220				
Ile	Ser	Ser	Glu	Gly	Ser	Gln	Ala	Gln	Glu	Pro	Ile	Leu	Val	Ser	Ala
225					230					235					240
Lys	Pro	Met	Leu	Glu	Ser	Ser	Ser	Tyr	Leu	Ile	Arg	Thr	Ala	Arg	Ser

5136

755	760	765
Lys Ala Val Glu Asp Glu	Ala Thr Arg Gly Thr Arg	Ala Leu Glu Ala
770	775	780
Thr Ile Glu Cys Ile Lys	Gln Glu Leu Thr Val Phe	Gln Ser Lys Asp
785	790	795
Val Pro Glu Lys Thr Ser	Ser Pro Glu Glu Ser Ile Arg	Met Thr Lys
805	810	815
Gly Ile Thr Met Ala Thr	Ala Lys Ala Val Ala Ala	Gly Asn Ser Cys
820	825	830
Arg Gln Glu Asp Val Ile	Ala Thr Ala Asn Leu Ser Arg	Lys Ala Val
835	840	845
Ser Asp Met Leu Thr Ala	Cys Lys Gln Ala Ser Phe	His Pro Asp Val
850	855	860
Ser Asp Glu Val Arg Thr	Arg Ala Leu Arg Phe Gly	Thr Glu Cys Thr
865	870	875
Leu Gly Tyr Leu Asp Leu	Leu Glu His Val Leu Val	Ile Leu Gln Lys
885	890	895
Pro Thr Pro Glu Leu Lys	Gln Gln Leu Ala Ala Phe	Ser Lys Arg Val
900	905	910
Ala Gly Ala Val Thr Glu	Leu Ile Gln Ala Ala Glu	Ala Met Lys Gly
915	920	925
Thr Glu Trp Val Asp Pro	Glu Asp Pro Thr Val Ile	Ala Glu Thr Glu
930	935	940
Leu Leu Gly Ala Ala Ala	Ser Ile Glu Ala Ala Ala	Lys Lys Leu Glu
945	950	955
Gln Leu Lys Pro Arg Ala	Lys Pro Lys Gln Ala Asp	Glu Thr Leu Asp
965	970	975
Phe Glu Glu Gln Ile Leu	Glu Ala Ala Lys Ser Ile	Ala Ala Ala Thr
980	985	990
Ser Ala Leu Val Lys Ser	Ala Ser Ala Ala Gln Arg	Glu Leu Val Ala
995	1000	1005
Gln Gly Lys Val Gly Ser	Ile Pro Ala Asn Ala Ala	Asp Asp Gly Gln
1010	1015	1020
Trp Ser Gln Gly Leu Ile	Ser Ala Ala Arg Met Val	Ala Ala Ala Thr
1025	1030	1035
Ser Ser Leu Cys Glu Ala	Ala Asn Ala Ser Val Gln	Gly His Ala Ser
1045	1050	1055
Glu Glu Lys Leu Ile Ser	Ser Ala Lys Gln Val Ala	Ala Ser Thr Ala
1060	1065	1070
Gln Leu Leu Val Ala Cys	Lys Val Lys Ala Asp Gln	Asp Ser Glu Ala
1075	1080	1085
Met Arg Arg Leu Gln Ala	Ala Gly Asn Ala Val Lys	Arg Ala Ser Asp
1090	1095	1100
Asn Leu Val Arg Ala Ala	Gln Lys Ala Ala Phe Gly	Lys Ala Asp Asp
1105	1110	1115
Asp Asp Val Val Val Lys	Thr Lys Phe Val Gly Gly	Ile Ala Gln Ile
1125	1130	1135
Ile Ala Ala Gln Glu Glu	Met Leu Lys Lys Glu Arg	Glu Leu Glu Glu
1140	1145	1150
Ala Arg Lys Lys Leu Ala	Gln Ile Arg Gln Gln Gln	Tyr Lys Phe Leu
1155	1160	1165
Pro Thr Glu Leu Arg Glu	Asp Glu Gly	
1170	1175	1177

<210> 3441

<211> 530

<212> PRT

<213> Homo sapiens

<400> 3441

Asn Ser Ala Arg Gly Gly Val Gly Val Arg Gly Ala Arg Ala Met Ala

1				5				10				15				
Thr	Val	Gln	Glu	Lys	Ala	Ala	Ala	Leu	Asn	Leu	Ser	Ala	Leu	His	Ser	
			20					25				30				
Pro	Ala	His	Arg	Pro	Pro	Gly	Phe	Ser	Val	Ala	Gln	Lys	Pro	Phe	Gly	
		35					40				45					
Ala	Thr	Tyr	Val	Trp	Ser	Ser	Ile	Ile	Asn	Thr	Leu	Gln	Thr	Gln	Val	
	50					55					60					
Glu	Val	Lys	Lys	Arg	Arg	His	Arg	Leu	Lys	Arg	His	Asn	Asp	Cys	Phe	
	65				70					75					80	
Val	Gly	Ser	Glu	Ala	Val	Asp	Val	Ile	Phe	Ser	His	Leu	Ile	Gln	Asn	
				85				90						95		
Lys	Tyr	Phe	Gly	Asp	Val	Asp	Ile	Pro	Arg	Ala	Lys	Val	Val	Arg	Val	
			100					105					110			
Cys	Gln	Ala	Leu	Met	Asp	Tyr	Lys	Val	Phe	Glu	Ala	Val	Pro	Thr	Lys	
	115						120					125				
Val	Phe	Gly	Lys	Asp	Lys	Lys	Pro	Thr	Phe	Glu	Asp	Ser	Ser	Cys	Ser	
	130					135					140					
Leu	Tyr	Arg	Phe	Thr	Thr	Ile	Pro	Asn	Gln	Asp	Ser	Gln	Leu	Gly	Lys	
	145				150					155					160	
Glu	Asn	Lys	Leu	Tyr	Ser	Pro	Ala	Arg	Tyr	Ala	Asp	Ala	Leu	Phe	Lys	
				165				170						175		
Ser	Ser	Asp	Ile	Arg	Ser	Ala	Ser	Leu	Glu	Asp	Leu	Trp	Glu	Asn	Leu	
			180					185					190			
Ser	Leu	Lys	Pro	Ala	Asn	Ser	Pro	His	Val	Asn	Ile	Ser	Thr	Thr	Leu	
	195						200					205				
Ser	Pro	Gln	Val	Ile	Asn	Glu	Val	Trp	Gln	Glu	Glu	Thr	Ile	Gly	Arg	
	210					215					220					
Leu	Leu	Gln	Leu	Val	Asp	Leu	Pro	Leu	Leu	Asp	Ser	Leu	Leu	Lys	Gln	
	225				230					235					240	
Gln	Glu	Ala	Val	Pro	Lys	Ile	Pro	Gln	Pro	Lys	Arg	Gln	Ser	Thr	Met	
				245				250						255		
Val	Asn	Ser	Ser	Asn	Tyr	Leu	Asp	Arg	Gly	Ile	Leu	Lys	Ala	Tyr	Ser	
			260					265					270			
Asp	Ser	Gln	Glu	Asp	Glu	Trp	Leu	Ser	Ala	Ala	Ile	Asp	Cys	Leu	Glu	
		275					280					285				
Tyr	Leu	Pro	Asp	Gln	Met	Val	Val	Glu	Ile	Ser	Arg	Ser	Phe	Pro	Glu	
	290					295					300					
Gln	Pro	Asp	Arg	Thr	Asp	Leu	Val	Lys	Glu	Leu	Leu	Phe	Asp	Ala	Ile	
	305				310					315					320	
Gly	Arg	Tyr	Tyr	Ser	Ser	Arg	Glu	Pro	Leu	Leu	Asn	His	Leu	Ser	Asp	
				325					330					335		
Val	His	Asn	Gly	Ile	Ala	Glu	Leu	Leu	Val	Asn	Gly	Lys	Thr	Glu	Ile	
		340						345					350			
Ala	Leu	Glu	Ala	Thr	Gln	Leu	Leu	Leu	Lys	Leu	Leu	Asp	Phe	Gln	Asn	
		355					360					365				
Arg	Glu	Glu	Phe	Arg	Arg	Leu	Leu	Tyr	Phe	Met	Ala	Val	Ala	Ala	Asn	
	370					375					380					
Pro	Ser	Glu	Phe	Lys	Leu	Gln	Lys	Glu	Ser	Asp	Asn	Arg	Met	Val	Val	
	385				390					395					400	
Lys	Arg	Ile	Phe	Ser	Lys	Ala	Ile	Val	Asp	Asn	Lys	Asn	Leu	Ser	Lys	
				405					410					415		
Gly	Lys	Thr	Asp	Leu	Leu	Val	Leu	Phe	Leu	Met	Asp	His	Gln	Lys	Asp	
			420					425					430			
Val	Phe	Lys	Ile	Pro	Gly	Thr	Leu	His	Lys	Ile	Val	Ser	Val	Lys	Leu	
		435					440					445				
Met	Ala	Ile	Gln	Asn	Gly	Arg	Asp	Pro	Asn	Arg	Asp	Ala	Gly	Tyr	Ile	
	450					455					460					
Tyr	Cys	Gln	Arg	Ile	Asp	Gln	Arg	Asp	Tyr	Ser	Asn	Ile	Thr	Glu	Lys	
	465				470					475					480	
Thr	Thr	Ile	Asp	Glu	Leu	Leu	Tyr	Leu	Leu	Lys	Thr	Leu	Asp	Glu	Asp	
				485				490						495		
Ser	Lys	Leu	Ser	Ala	Lys	Glu	Lys	Lys	Lys	Leu	Leu	Gly	Gln	Phe	Tyr	
			500					505					510			
Lys	Cys	His	Pro	Asp	Ile	Phe	Ile	Glu	His	Phe	Gly	Asp				

515

520

525

<210> 3442
 <211> 223
 <212> PRT
 <213> Homo sapiens

<400> 3442
 Ser Pro Ala Ser Gly His Cys Arg Leu Asn Gly Ala Ala Val Ala Met
 1 5 10 15
 Phe Gly Cys Leu Val Ala Gly Arg Leu Val Gln Thr Ala Ala Gln Gln
 20 25 30
 Val Ala Glu Asp Lys Phe Val Phe Asp Leu Pro Asp Tyr Glu Ser Ile
 35 40 45
 Asn His Val Val Val Phe Met Leu Gly Thr Ile Pro Phe Pro Glu Gly
 50 55 60
 Met Gly Gly Ser Val Tyr Phe Ser Tyr Pro Asp Ser Asn Gly Met Pro
 65 70 75 80
 Val Trp Gln Leu Leu Gly Phe Val Thr Asn Gly Lys Pro Ser Ala Ile
 85 90 95
 Phe Lys Ile Ser Gly Leu Lys Ser Gly Glu Gly Ser Gln His Pro Phe
 100 105 110
 Gly Ala Met Asn Ile Val Arg Thr Pro Ser Val Ala Gln Ile Gly Ile
 115 120 125
 Ser Val Glu Leu Leu Asp Ser Met Ala Gln Gln Thr Pro Val Gly Asn
 130 135 140
 Ala Ala Val Ser Ser Val Asp Ser Phe Thr Gln Phe Thr Gln Lys Met
 145 150 155 160
 Leu Asp Asn Phe Tyr Asn Phe Ala Ser Ser Phe Ala Val Ser Gln Val
 165 170 175
 Pro Asp Asp Thr Gln Arg Pro Ser Glu Met Phe Ile Pro Ala Asn Val
 180 185 190
 Val Leu Lys Trp Tyr Glu Asn Phe Gln Arg Arg Thr Ser Thr Glu Pro
 195 200 205
 Ser Leu Leu Glu Asn Ile Ile Trp Ile Lys Ile Asn Phe
 210 215 220 221

<210> 3443
 <211> 457
 <212> PRT
 <213> Homo sapiens

<400> 3443
 Ser Trp His Val Arg Arg Arg Trp Leu Glu Ala Thr Met Ala Gly Gly
 1 5 10 15
 Met Lys Val Ala Val Ser Pro Ala Val Gly Pro Gly Pro Trp Gly Ser
 20 25 30
 Gly Val Gly Gly Gly Thr Val Arg Leu Leu Leu Ile Leu Ser Gly
 35 40 45
 Cys Leu Val Tyr Gly Thr Ala Glu Thr Asp Val Asn Val Val Met Leu
 50 55 60
 Gln Glu Ser Gln Val Cys Glu Lys Arg Ala Ser Gln Gln Phe Cys Tyr
 65 70 75 80
 Thr Asn Val Leu Ile Pro Gln Trp His Asp Ile Trp Thr Arg Ile Gln
 85 90 95
 Ile Arg Val Asn Ser Ser Arg Leu Val Arg Val Thr Gln Val Glu Asn
 100 105 110
 Glu Glu Lys Leu Lys Glu Leu Glu Gln Phe Ser Ile Trp Asn Phe Phe

115	120	125
Ser Ser Phe Leu Lys Glu Lys Leu Asn Asp Thr Tyr Val Asn Val Gly		
130	135	140
Leu Tyr Ser Thr Lys Thr Cys Leu Lys Val Glu Ile Ile Glu Lys Asp		
145	150	155
Thr Lys Tyr Ser Val Ile Val Ile Arg Arg Phe Asp Pro Lys Leu Phe		160
165	170	175
Leu Val Phe Leu Leu Gly Leu Met Leu Phe Phe Cys Gly Asp Leu Leu		
180	185	190
Ser Arg Ser Gln Ile Phe Tyr Tyr Ser Thr Gly Met Thr Val Gly Ile		
195	200	205
Val Ala Ser Leu Leu Ile Ile Ile Phe Ile Leu Ser Lys Phe Met Pro		
210	215	220
Lys Lys Ser Pro Ile Tyr Val Ile Leu Val Gly Gly Trp Ser Phe Ser		
225	230	235
Leu Tyr Leu Ile Gln Leu Val Phe Lys Asn Leu Gln Glu Ile Trp Arg		240
245	250	255
Cys Tyr Trp Gln Tyr Leu Leu Ser Tyr Val Leu Thr Val Gly Phe Met		
260	265	270
Ser Phe Ala Val Cys Tyr Lys Tyr Gly Pro Leu Glu Asn Glu Arg Ser		
275	280	285
Ile Asn Leu Leu Thr Trp Thr Leu Gln Leu Met Gly Leu Cys Phe Met		
290	295	300
Tyr Ser Gly Ile Gln Ile Pro His Ile Ala Leu Ala Ile Ile Ile Ile		
305	310	315
Ala Leu Cys Thr Lys Asn Leu Glu His Pro Ile Gln Trp Leu Tyr Ile		320
325	330	335
Thr Cys Arg Lys Val Cys Lys Gly Ala Glu Lys Pro Val Pro Pro Arg		
340	345	350
Leu Leu Thr Glu Glu Glu Tyr Arg Ile Gln Gly Glu Val Glu Thr Arg		
355	360	365
Lys Ala Leu Glu Glu Leu Arg Glu Phe Cys Asn Ser Pro Asp Cys Ser		
370	375	380
Ala Trp Lys Thr Val Ser Arg Ile Gln Ser Pro Lys Arg Phe Ala Asp		
385	390	395
Phe Val Glu Gly Ser Ser His Leu Thr Pro Asn Glu Val Ser Val His		400
405	410	415
Glu Gln Glu Tyr Gly Leu Gly Ser Ile Ile Ala Gln Asp Glu Ile Tyr		
420	425	430
Glu Glu Ala Ser Ser Glu Glu Glu Asp Ser Tyr Ser Arg Cys Pro Ala		
435	440	445
Ile Thr Gln Asn Asn Phe Leu Thr		
450	455	456

<210> 3444

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3444

Lys Gly Leu Glu Arg Thr Cys Cys Ala Met Glu Glu Ser Asp Ser Glu		
1	5	10
Lys Thr Thr Glu Lys Glu Asn Leu Gly Pro Arg Met Asp Pro Pro Leu		
20	25	30
Gly Glu Pro Gly Gly Ser Leu Gly Trp Val Leu Pro Asn Thr Ala Met		
35	40	45
Lys Lys Lys Val Leu Leu Met Gly Lys Ser Gly Ser Gly Lys Thr Ser		
50	55	60
Met Arg Ser Ile Ile Phe Ala Asn Tyr Ile Ala Arg Asp Thr Arg Arg		
65	70	75
Leu Gly Ala Thr Ile Leu Asp Arg Ile His Ser Leu Gln Ile Asn Ser		80

				85					90				95				
Ser	Leu	Ser	Thr	Tyr	Ser	Leu	Val	Asp	Ser	Val	Gly	Asn	Thr	Lys	Thr		
				100				105					110				
Phe	Asp	Val	Glu	His	Ser	His	Val	Arg	Phe	Leu	Gly	Asn	Leu	Val	Leu		
				115				120					125				
Asn	Leu	Trp	Asp	Cys	Gly	Gly	Gln	Asp	Thr	Phe	Met	Glu	Asn	Tyr	Phe		
				130				135				140					
Thr	Ser	Gln	Arg	Asp	Asn	Ile	Phe	Arg	Asn	Val	Glu	Val	Leu	Ile	Tyr		
145					150					155					160		
Val	Phe	Asp	Val	Glu	Ser	Arg	Glu	Leu	Glu	Lys	Asp	Met	His	Tyr	Tyr		
				165						170				175			
Gln	Ser	Cys	Leu	Glu	Ala	Ile	Leu	Gln	Asn	Ser	Pro	Asp	Ala	Lys	Ile		
				180				185					190				
Phe	Cys	Leu	Val	His	Lys	Met	Asp	Leu	Val	Gln	Glu	Asp	Gln	Arg	Asp		
				195			200					205					
Leu	Ile	Phe	Lys	Glu	Arg	Glu	Glu	Asp	Leu	Arg	Arg	Leu	Ser	Arg	Pro		
				210			215					220					
Leu	Glu	Cys	Ser	Cys	Phe	Arg	Thr	Ser	Ile	Trp	Asp	Glu	Thr	Leu	Tyr		
225					230					235					240		
Lys	Ala	Trp	Ser	Ser	Ile	Val	Tyr	Gln	Leu	Ile	Pro	Asn	Val	Gln	Gln		
				245					250					255			
Leu	Glu	Met	Asn	Leu	Arg	Asn	Phe	Ala	Glu	Ile	Ile	Glu	Ala	Asp	Glu		
				260				265					270				
Val	Leu	Leu	Phe	Glu	Arg	Ala	Thr	Phe	Leu	Val	Ile	Ser	His	Tyr	Gln		
				275				280					285				
Cys	Lys	Glu	Gln	Arg	Asp	Ala	His	Arg	Phe	Glu	Lys	Ile	Ser	Asn	Ile		
				290			295				300						
Ile	Lys	Gln	Phe	Lys	Leu	Ser	Cys	Ser	Lys	Leu	Ala	Ala	Ser	Phe	Gln		
305					310					315					320		
Ser	Met	Glu	Val	Arg	Asn	Ser	Asn	Phe	Ala	Ala	Phe	Ile	Asp	Ile	Phe		
				325				330						335			
Thr	Ser	Asn	Thr	Tyr	Val	Met	Val	Val	Met	Ser	Asp	Pro	Ser	Ile	Pro		
				340				345					350				
Ser	Ala	Ala	Thr	Leu	Ile	Asn	Ile	Arg	Asn	Ala	Arg	Lys	His	Phe	Glu		
				355			360					365					
Lys	Leu	Glu	Arg	Val	Asp	Gly	Pro	Lys	Gln	Cys	Leu	Leu	Met	Arg			
				370			375				380			383			

<210> 3445

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3445

Lys	Gly	Leu	Glu	Arg	Thr	Cys	Cys	Ala	Met	Glu	Glu	Ser	Asp	Ser	Glu		
1				5				10					15				
Lys	Thr	Thr	Glu	Lys	Glu	Asn	Leu	Gly	Pro	Arg	Met	Asp	Pro	Pro	Leu		
			20					25					30				
Gly	Glu	Pro	Gly	Gly	Ser	Leu	Gly	Trp	Val	Leu	Pro	Asn	Thr	Ala	Met		
			35				40					45					
Lys	Lys	Lys	Val	Leu	Leu	Met	Gly	Lys	Ser	Gly	Ser	Gly	Lys	Thr	Ser		
			50			55					60						
Met	Arg	Ser	Ile	Ile	Phe	Ala	Asn	Tyr	Ile	Ala	Arg	Asp	Thr	Arg	Arg		
65				70						75					80		
Leu	Gly	Ala	Thr	Ile	Leu	Asp	Arg	Ile	His	Ser	Leu	Gln	Ile	Asn	Ser		
				85				90					95				
Ser	Leu	Ser	Thr	Tyr	Ser	Leu	Val	Asp	Ser	Val	Gly	Asn	Thr	Lys	Thr		
			100					105					110				
Phe	Asp	Val	Glu	His	Ser	His	Val	Arg	Phe	Leu	Gly	Asn	Leu	Val	Leu		
			115				120					125					
Asn	Leu	Trp	Asp	Cys	Gly	Gly	Gln	Asp	Thr	Phe	Met	Glu	Asn	Tyr	Phe		

130	135	140
Thr Ser Gln Arg Asp Asn Ile Phe Arg Asn Val Glu Val Leu Ile Tyr		
145	150	155
Val Phe Asp Val Glu Ser Arg Glu Leu Glu Lys Asp Met His Tyr Tyr		160
	165	170
Gln Ser Cys Leu Glu Ala Ile Leu Gln Asn Ser Pro Asp Ala Lys Ile		175
	180	185
Phe Cys Leu Val His Lys Met Asp Leu Val Gln Glu Asp Gln Arg Asp		190
	195	200
Leu Ile Phe Lys Glu Arg Glu Glu Asp Leu Arg Arg Leu Ser Arg Pro		205
	210	215
Leu Glu Cys Ser Cys Phe Arg Thr Ser Ile Trp Asp Glu Thr Leu Tyr		220
225	230	235
Lys Ala Trp Ser Ser Ile Val Tyr Gln Leu Ile Pro Asn Val Gln Gln		240
	245	250
Leu Glu Met Asn Leu Arg Asn Phe Ala Glu Ile Ile Glu Ala Asp Glu		255
	260	265
Val Leu Leu Phe Glu Arg Ala Thr Phe Leu Val Ile Ser His Tyr Gln		270
	275	280
Cys Lys Glu Gln Arg Asp Ala His Arg Phe Glu Lys Ile Ser Asn Ile		285
	290	295
Ile Lys Gln Phe Lys Leu Ser Cys Ser Lys Leu Ala Ala Ser Phe Gln		300
305	310	315
Ser Met Glu Val Arg Asn Ser Asn Phe Ala Ala Phe Ile Asp Ile Phe		320
	325	330
Thr Ser Asn Thr Tyr Val Met Val Val Met Ser Asp Pro Ser Ile Pro		335
	340	345
Ser Ala Ala Thr Leu Ile Asn Ile Arg Asn Ala Arg Lys His Phe Glu		350
	355	360
Lys Leu Glu Arg Val Asp Gly Pro Lys Gln Cys Leu Leu Met Arg		365
370	375	380
		383

<210> 3446

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3446

Lys Gly Leu Glu Arg Thr Cys Cys Ala Met Glu Glu Ser Asp Ser Glu	
1	5
Lys Thr Thr Glu Lys Glu Asn Leu Gly Pro Arg Met Asp Pro Pro Leu	10
	15
	20
Gly Glu Pro Gly Gly Ser Leu Gly Trp Val Leu Pro Asn Thr Ala Met	25
	30
	35
Lys Lys Lys Val Leu Leu Met Gly Lys Ser Gly Ser Gly Lys Thr Ser	40
	45
	50
Met Arg Ser Ile Ile Phe Ala Asn Tyr Ile Ala Arg Asp Thr Arg Arg	55
	60
	65
Leu Gly Ala Thr Ile Leu Asp Arg Ile His Ser Leu Gln Ile Asn Ser	70
	75
	80
	85
Ser Leu Ser Thr Tyr Ser Leu Val Asp Ser Val Gly Asn Thr Lys Thr	90
	95
	100
Phe Asp Val Glu His Ser His Val Arg Phe Leu Gly Asn Leu Val Leu	105
	110
	115
Asn Leu Trp Asp Cys Gly Gly Gln Asp Thr Phe Met Glu Asn Tyr Phe	120
	125
	130
Thr Ser Gln Arg Asp Asn Ile Phe Arg Asn Val Glu Val Leu Ile Tyr	135
	140
	145
Val Phe Asp Val Glu Ser Arg Glu Leu Glu Lys Asp Met His Tyr Tyr	150
	155
	160
	165
Gln Ser Cys Leu Glu Ala Ile Leu Gln Asn Ser Pro Asp Ala Lys Ile	170
	175

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<210> 3447
<211> 977
<212> PRT
<213> Homo sapiens
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	<400> 3447															
Val 1	Leu	Leu	Gly	Pro 5	Leu	Trp	Asp	Lys	Leu 10	Ser	Thr	Ala	Asp	His 15	Pro	
Val	Ile	Val	Thr 20	Met	Ala	Ser	Lys	Arg 25	Lys	Ser	Thr	Thr	Pro 30	Cys	Met	
Ile	Pro	Val	Lys 35	Thr	Val	Val	Leu 40	Gln	Asp	Ala	Ser	Met 45	Glu	Ala	Gln	
Pro 50	Ala	Glu	Thr	Leu	Pro	Glu 55	Gly	Pro	Gln	Gln	Asp 60	Leu	Pro	Pro	Glu	
Ala 65	Ser	Ala	Ala	Ser	Ser 70	Glu	Ala	Ala	Gln	Asn 75	Pro	Ser	Ser	Thr 80	Asp	
Gly	Ser	Thr	Leu	Ala 85	Asn	Gly	His	Arg	Ser 90	Thr	Leu	Asp	Gly 95	Tyr	Leu	
Tyr	Ser	Cys	Lys 100	Tyr	Cys	Asp	Phe 105	Arg	Ser	His	Asp	Met 110	Thr	Gln	Phe	
Val	Gly 115	His	Met	Asn	Ser	Glu	His 120	Thr	Asp	Phe	Asn 125	Lys	Asp	Pro	Thr	
Phe 130	Val	Cys	Ser	Gly	Cys	Ser 135	Phe	Leu	Ala	Lys	Thr 140	Pro	Glu	Gly	Leu	
Ser 145	Leu	His	Asn	Ala	Thr 150	Cys	His	Ser	Gly	Glu 155	Ala	Ser	Phe	Val 160	Trp	
Asn	Val	Ala	Lys	Pro 165	Asp	Asn	His	Val	Val 170	Val	Glu	Gln	Ser 175	Ile	Pro	
Glu	Ser	Thr 180	Ser	Thr	Pro	Asp	Leu 185	Ala	Gly	Glu	Pro	Ser 190	Ala	Glu	Gly	
Ala	Asp 195	Gly	Gln	Ala	Glu	Ile 200	Ile	Ile	Thr	Lys	Thr 205	Pro	Ile	Met	Lys	
Ile 210	Met	Lys	Gly	Lys	Ala	Glu 215	Ala	Lys	Lys	Ile	His 220	Thr	Leu	Lys	Glu	
Asn	Val	Pro	Ser	Gln	Pro	Val	Gly	Glu	Ala	Leu	Pro	Lys	Leu	Ser	Thr	

225					230					235				240	
Gly	Glu	Met	Glu	Val	Arg	Glu	Gly	Asp	His	Ser	Phe	Ile	Asn	Gly	Ala
				245					250					255	
Val	Pro	Val	Arg	Gln	Ala	Ser	Ala	Ser	Ser	Ala	Lys	Asn	Pro	His	Ala
			260					265					270		
Ala	Asn	Gly	Pro	Leu	Ile	Gly	Thr	Val	Pro	Val	Leu	Pro	Ala	Gly	Ile
		275					280					285			
Ala	Gln	Phe	Leu	Ser	Leu	Gln	Gln	Gln	Pro	Pro	Val	His	Ala	Gln	His
	290					295					300				
His	Val	His	Gln	Pro	Leu	Pro	Thr	Ala	Lys	Ala	Leu	Pro	Lys	Val	Met
305					310					315					320
Ile	Pro	Leu	Ser	Ser	Ile	Pro	Thr	Tyr	Ser	Ala	Ala	Met	Asp	Ser	Asn
			325						330					335	
Ser	Phe	Leu	Lys	Asn	Ser	Phe	His	Lys	Phe	Pro	Tyr	Pro	Thr	Lys	Ala
			340					345					350		
Glu	Leu	Cys	Tyr	Leu	Thr	Val	Val	Thr	Lys	Tyr	Pro	Glu	Glu	Gln	Leu
		355					360					365			
Lys	Ile	Trp	Phe	Thr	Ala	Gln	Arg	Leu	Lys	Gln	Gly	Ile	Ser	Trp	Ser
	370					375					380				
Pro	Glu	Glu	Ile	Glu	Asp	Ala	Arg	Lys	Lys	Met	Phe	Asn	Thr	Val	Ile
385					390					395					400
Gln	Ser	Val	Pro	Gln	Pro	Thr	Ile	Thr	Val	Leu	Asn	Thr	Pro	Leu	Val
				405					410					415	
Ala	Ser	Ala	Gly	Asn	Val	Gln	His	Leu	Ile	Gln	Ala	Ala	Leu	Pro	Gly
			420					425					430		
His	Val	Val	Gly	Gln	Pro	Glu	Gly	Thr	Gly	Gly	Gly	Leu	Leu	Val	Thr
	435						440					445			
Gln	Pro	Leu	Met	Ala	Asn	Gly	Leu	Gln	Ala	Thr	Ser	Ser	Pro	Leu	Pro
	450					455					460				
Leu	Thr	Val	Thr	Ser	Val	Pro	Lys	Gln	Pro	Gly	Val	Ala	Pro	Ile	Asn
465					470					475					480
Thr	Val	Cys	Ser	Asn	Thr	Thr	Ser	Ala	Val	Lys	Val	Val	Asn	Ala	Ala
				485					490					495	
Gln	Ser	Leu	Leu	Thr	Ala	Cys	Pro	Ser	Ile	Thr	Ser	Gln	Ala	Phe	Leu
		500						505					510		
Asp	Ala	Ser	Ile	Tyr	Lys	Asn	Lys	Lys	Ser	His	Glu	Gln	Leu	Ser	Ala
	515						520					525			
Leu	Lys	Gly	Ser	Phe	Cys	Arg	Asn	Gln	Phe	Pro	Gly	Gln	Ser	Glu	Val
	530					535					540				
Glu	His	Leu	Thr	Lys	Val	Thr	Gly	Leu	Ser	Thr	Arg	Glu	Val	Arg	Lys
545					550					555					560
Trp	Phe	Ser	Asp	Arg	Arg	Tyr	His	Cys	Arg	Asn	Leu	Lys	Gly	Ser	Arg
				565					570					575	
Ala	Met	Ile	Pro	Gly	Asp	His	Arg	Ser	Ile	Ile	Ile	Asp	Ser	Val	Pro
			580					585					590		
Glu	Val	Ser	Phe	Ser	Pro	Ser	Ser	Lys	Val	Pro	Glu	Val	Thr	Cys	Ile
	595						600					605			
Pro	Thr	Thr	Ala	Thr	Leu	Ala	Thr	His	Pro	Ser	Ala	Lys	Arg	Gln	Ser
	610					615					620				
Trp	His	Gln	Thr	Pro	Asp	Phe	Thr	Pro	Thr	Lys	Tyr	Lys	Glu	Arg	Ala
625					630					635					640
Pro	Glu	Gln	Leu	Arg	Ala	Leu	Glu	Ser	Ser	Phe	Ala	Gln	Asn	Pro	Leu
				645					650					655	
Pro	Leu	Asp	Glu	Glu	Leu	Asp	Arg	Leu	Arg	Ser	Glu	Thr	Lys	Met	Thr
		660					665						670		
Arg	Arg	Glu	Ile	Asp	Ser	Trp	Phe	Ser	Glu	Arg	Arg	Lys	Lys	Val	Asn
	675						680					685			
Ala	Glu	Glu	Thr	Lys	Lys	Ala	Glu	Glu	Asn	Ala	Ser	Gln	Glu	Glu	Glu
	690					695					700				
Glu	Ala	Ala	Glu	Asp	Glu	Gly	Gly	Glu	Glu	Asp	Leu	Ala	Ser	Glu	Leu
705					710					715					720
Arg	Val	Ser	Gly	Glu	Asn	Gly	Ser	Leu	Glu	Met	Pro	Ser	Ser	His	Ile
				725					730					735	
Leu	Ala	Glu	Arg	Lys	Val	Ser	Pro	Ile	Lys	Ile	Asn	Leu	Lys	Asn	Leu

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<210> 3448
<211> 444
<212> PRT
<213> Homo sapiens
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<400> 3448															
Phe	Val	Ala	Arg	Ala	Glu	Lys	Gly	Phe	Arg	Thr	Arg	Glu	Ala	His	Leu
1				5					10					15	
Leu	Gln	Val	Ala	Gly	Val	Gly	Thr	Gly	Leu	Gln	Asn	Gly	Ala	Ser	Leu
			20					25					30		
Ser	Gly	Leu	Ala	Ser	Gly	Val	Met	Ala	Gln	Arg	Ala	Phe	Pro	Asn	Pro
		35					40					45			
Tyr	Ala	Asp	Tyr	Asn	Lys	Ser	Leu	Ala	Glu	Gly	Tyr	Phe	Asp	Ala	Ala
	50					55					60				
Gly	Arg	Leu	Thr	Pro	Glu	Phe	Ser	Gln	Arg	Leu	Thr	Asn	Lys	Ile	Arg
65					70					75					80
Glu	Leu	Leu	Gln	Gln	Met	Glu	Arg	Gly	Leu	Lys	Ser	Ala	Asp	Pro	Arg
				85					90					95	
Asp	Gly	Thr	Gly	Tyr	Thr	Gly	Trp	Ala	Gly	Ile	Ala	Val	Leu	Tyr	Leu
			100					105					110		
His	Leu	Tyr	Asp	Val	Phe	Gly	Asp	Pro	Ala	Tyr	Leu	Gln	Leu	Ala	His
		115					120					125			
Gly	Tyr	Val	Lys	Gln	Ser	Leu	Asn	Cys	Leu	Thr	Lys	Arg	Ser	Ile	Thr
	130					135					140				
Phe	Leu	Cys	Gly	Asp	Ala	Gly	Pro	Leu	Ala	Val	Ala	Ala	Val	Leu	Tyr
145					150					155					160
His	Lys	Met	Asn	Asn	Glu	Lys	Gln	Ala	Glu	Asp	Cys	Ile	Thr	Arg	Leu
				165					170					175	
Ile	His	Leu	Asn	Lys	Ile	Asp	Pro	His	Ala	Pro	Asn	Glu	Met	Leu	Tyr

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<210> 3449
<211> 798
<212> PRT
<213> Homo sapiens
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5146

				165					170					175			
Gly	Ile	Ile	Tyr	Arg	Asp	Leu	Lys	Leu	Glu	Asn	Val	Leu	Leu	Asp	Ser		
			180					185					190				
Glu	Gly	His	Ile	Val	Leu	Thr	Asp	Phe	Gly	Leu	Ser	Lys	Glu	Phe	Leu		
		195					200					205					
Thr	Glu	Glu	Lys	Glu	Arg	Thr	Phe	Ser	Phe	Cys	Gly	Thr	Ile	Glu	Tyr		
	210					215					220						
Met	Ala	Pro	Glu	Ile	Ile	Arg	Ser	Lys	Thr	Gly	His	Gly	Lys	Ala	Val		
225				230						235					240		
Asp	Trp	Trp	Ser	Leu	Gly	Ile	Leu	Leu	Phe	Glu	Leu	Leu	Thr	Gly	Ala		
			245						250					255			
Ser	Pro	Phe	Thr	Leu	Glu	Gly	Glu	Arg	Asn	Thr	Gln	Ala	Glu	Val	Ser		
			260					265						270			
Arg	Arg	Ile	Leu	Lys	Cys	Ser	Pro	Pro	Phe	Pro	Pro	Arg	Ile	Gly	Pro		
		275					280					285					
Val	Ala	Gln	Asp	Leu	Leu	Gln	Arg	Leu	Leu	Cys	Lys	Asp	Pro	Lys	Lys		
	290					295				300							
Arg	Leu	Gly	Ala	Gly	Pro	Gln	Gly	Ala	Gln	Glu	Val	Arg	Asn	His	Pro		
305					310					315					320		
Phe	Phe	Gln	Gly	Leu	Asp	Trp	Val	Ala	Leu	Ala	Ala	Arg	Lys	Ile	Pro		
			325						330					335			
Ala	Pro	Phe	Arg	Pro	Gln	Ile	Arg	Ser	Glu	Leu	Asp	Val	Gly	Asn	Phe		
			340					345					350				
Ala	Glu	Glu	Phe	Thr	Arg	Leu	Glu	Pro	Val	Tyr	Ser	Pro	Pro	Gly	Gln		
		355					360					365					
Pro	Pro	Pro	Gly	Asp	Pro	Arg	Ile	Phe	Gln	Gly	Tyr	Ser	Phe	Val	Ala		
	370					375					380						
Pro	Ser	Ile	Leu	Phe	Asp	His	Asn	Asn	Ala	Val	Met	Thr	Asp	Gly	Leu		
385					390					395					400		
Glu	Ala	Pro	Gly	Ala	Gly	Asp	Arg	Pro	Gly	Arg	Ala	Ala	Val	Ala	Arg		
			405						410					415			
Ser	Ala	Met	Met	Gln	Asp	Ser	Pro	Phe	Phe	Gln	Gln	Tyr	Glu	Leu	Asp		
			420					425					430				
Leu	Arg	Glu	Pro	Ala	Leu	Gly	Gln	Gly	Ser	Phe	Ser	Val	Cys	Arg	Arg		
		435					440					445					
Cys	Arg	Gln	Arg	Gln	Ser	Gly	Gln	Glu	Phe	Ala	Val	Lys	Ile	Leu	Ser		
	450					455				460							
Arg	Arg	Leu	Glu	Ala	Asn	Thr	Gln	Arg	Glu	Val	Ala	Ala	Leu	Arg	Leu		
465					470					475					480		
Cys	Gln	Ser	His	Pro	Asn	Val	Val	Asn	Leu	His	Glu	Val	His	His	Asp		
			485					490						495			
Gln	Leu	His	Thr	Tyr	Leu	Val	Leu	Glu	Leu	Leu	Arg	Gly	Gly	Glu	Leu		
			500					505					510				
Leu	Glu	His	Ile	Arg	Lys	Lys	Arg	His	Phe	Ser	Glu	Ser	Glu	Ala	Ser		
		515					520						525				
Gln	Ile	Leu	Arg	Ser	Leu	Val	Ser	Ala	Val	Ser	Phe	Met	His	Glu	Glu		
	530					535					540						
Ala	Gly	Val	Val	His	Arg	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Leu	Tyr	Ala		
545					550					555					560		
Asp	Asp	Thr	Pro	Gly	Ala	Pro	Val	Lys	Ile	Ile	Asp	Phe	Gly	Phe	Ser		
			565					570						575			
Pro	Arg	Leu	Arg	Pro	Gln	Ser	Pro	Gly	Val	Pro	Met	Gln	Thr	Pro	Ser		
			580					585					590				
Phe	Thr	Leu	Gln	Tyr	Ala	Ala	Pro	Glu	Leu	Leu	Ala	Gln	Gln	Gly	Tyr		
		595					600					605					
Asp	Glu	Ser	Cys	Asp	Leu	Trp	Ser	Leu	Gly	Val	Ile	Leu	Tyr	Met	Met		
	610					615					620						
Leu	Ser	Gly	Gln	Ala	Pro	Phe	Gln	Gly	Ala	Ser	Gly	Gln	Gly	Gly	Gln		
625					630					635					640		
Ser	Gln	Ala	Ala	Glu	Ile	Met	Cys	Lys	Ile	Arg	Glu	Gly	Arg	Phe	Ser		
			645					650						655			
Leu	Asp	Gly	Glu	Ala	Trp	Gln	Gly	Val	Ser	Glu	Glu	Ala	Lys	Glu	Leu		
			660					665					670				
Val	Arg	Gly	Leu	Leu	Thr	Val	Asp	Pro	Ala	Lys	Arg	Leu	Lys	Leu	Glu		

675	680	685
Gly Leu Arg Gly Ser Ser Trp	Leu Gln Asp Gly Ser	Ala Arg Ser Ser
690	695	700
Pro Pro Leu Arg Thr Pro Asp	Val Leu Glu Ser Ser	Gly Pro Ala Val
705	710	715
Arg Ser Gly Leu Asn Ala Thr	Phe Met Ala Phe Asn	Arg Gly Lys Arg
725	730	735
Glu Gly Phe Phe Leu Lys Ser	Val Glu Asn Ala Pro	Leu Ala Lys Arg
740	745	750
Arg Lys Gln Lys Leu Arg Ser	Ala Thr Ala Ser Arg	Arg Gly Ser Pro
755	760	765
Ala Pro Ala Asn Pro Gly Arg	Ala Pro Val Ala Ser	Lys Gly Ala Pro
770	775	780
Arg Arg Ala Asn Gly Pro	Leu Pro Pro Ser	
785	790	794

<210> 3450

<211> 502

<212> PRT

<213> Homo sapiens

<400> 3450

Lys Gly Thr Glu Met Asn Lys Ser Arg Trp Gln Ser Arg Arg Arg His	
1 5 10 15	
Gly Arg Arg Ser His Gln Gln Asn Pro Trp Phe Arg Leu Arg Asp Ser	
20 25 30	
Glu Asp Arg Ser Asp Ser Arg Ala Ala Gln Pro Ala His Asp Ser Gly	
35 40 45	
His Gly Asp Asp Glu Ser Pro Ser Thr Ser Ser Gly Thr Ala Gly Thr	
50 55 60	
Ser Ser Val Pro Glu Leu Pro Gly Phe Tyr Phe Asp Pro Glu Lys Lys	
65 70 75 80	
Arg Tyr Phe Arg Leu Leu Pro Gly His Asn Asn Cys Asn Pro Leu Thr	
85 90 95	
Lys Glu Ser Ile Arg Gln Lys Glu Met Glu Ser Lys Arg Leu Arg Leu	
100 105 110	
Leu Gln Glu Glu Asp Arg Arg Lys Lys Ile Ala Arg Met Gly Phe Asn	
115 120 125	
Ala Ser Ser Met Leu Arg Lys Ser Gln Leu Gly Phe Leu Asn Val Thr	
130 135 140	
Asn Tyr Cys His Leu Ala His Glu Leu Arg Leu Ser Cys Met Glu Arg	
145 150 155 160	
Lys Lys Val Gln Ile Arg Ser Met Asp Pro Ser Ala Leu Ala Ser Asp	
165 170 175	
Arg Phe Asn Leu Ile Leu Ala Asp Thr Asn Ser Asp Arg Leu Phe Thr	
180 185 190	
Val Asn Asp Val Thr Val Gly Gly Ser Lys Tyr Gly Ile Ile Asn Leu	
195 200 205	
Gln Ser Leu Lys Thr Pro Thr Leu Lys Val Phe Met His Glu Asn Leu	
210 215 220	
Tyr Phe Thr Asn Arg Lys Val Asn Ser Val Cys Trp Ala Ser Leu Asn	
225 230 235 240	
His Leu Asp Ser His Ile Leu Leu Cys Leu Met Gly Leu Ala Glu Thr	
245 250 255	
Pro Gly Cys Ala Thr Leu Leu Pro Ala Ser Leu Phe Val Asn Ser His	
260 265 270	
Pro Ala Gly Ile Asp Arg Pro Gly Met Leu Cys Ser Phe Arg Ile Pro	
275 280 285	
Gly Ala Trp Ser Cys Ala Trp Ser Leu Asn Ile Gln Ala Asn Asn Cys	
290 295 300	
Phe Ser Thr Gly Leu Ser Arg Arg Val Leu Leu Thr Asn Val Val Thr	

305		310		315		320
Gly His Arg Gln Ser Phe Gly Thr Asn Ser Asp Val Leu Ala Gln Gln						
	325			330		335
Phe Ala Leu Met Ala Pro Leu Leu Phe Asn Gly Cys Arg Ser Gly Glu						
	340			345		350
Ile Phe Ala Ile Asp Leu Arg Cys Gly Asn Gln Gly Lys Gly Trp Lys						
	355			360		365
Ala Thr Arg Leu Phe His Asp Ser Ala Val Thr Ser Val Arg Ile Leu						
	370			375		380
Gln Asp Glu Gln Tyr Leu Met Ala Ser Asp Met Ala Gly Lys Ile Lys						
	385			390		395
Leu Trp Asp Leu Arg Thr Thr Lys Cys Val Arg Gln Tyr Glu Gly His						
	405			410		415
Val Asn Glu Tyr Ala Tyr Leu Pro Leu His Val His Glu Glu Glu Gly						
	420			425		430
Ile Leu Val Ala Val Gly Gln Asp Cys Tyr Thr Arg Ile Trp Ser Leu						
	435			440		445
His Asp Ala Arg Leu Leu Arg Thr Ile Pro Ser Pro Tyr Pro Ala Ser						
	450			455		460
Lys Ala Asp Ile Pro Ser Val Ala Phe Ser Ser Arg Leu Gly Gly Ser						
	465			470		475
Arg Gly Ala Pro Gly Leu Leu Met Ala Val Gly Gln Asp Leu Tyr Cys						
	485			490		495
Tyr Ser Tyr Ser						
	500					

<210> 3451

<211> 2007

<212> PRT

<213> Homo sapiens

<400> 3451

Leu Leu Ser Ala Met Leu Ser His Gly Ala Gly Leu Ala Leu Trp Ile															
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Thr Leu Ser Leu Leu Gln Thr Gly Leu Ala Glu Pro Glu Arg Cys Asn															
	20							25						30	
Phe Thr Leu Ala Glu Ser Lys Ala Ser Ser His Ser Val Ser Ile Gln															
	35							40						45	
Trp Arg Ile Leu Gly Ser Pro Cys Asn Phe Ser Leu Ile Tyr Ser Ser															
	50							55						60	
Asp Thr Leu Gly Ala Ala Leu Cys Pro Thr Phe Arg Ile Asp Asn Thr															
	65							70						75	
Thr Tyr Gly Cys Asn Leu Gln Asp Leu Gln Ala Gly Thr Ile Tyr Asn															
		85						90						95	
Phe Lys Ile Ile Ser Leu Asp Glu Glu Arg Thr Val Val Leu Gln Thr															
	100							105						110	
Asp Pro Leu Pro Pro Ala Arg Phe Gly Val Ser Lys Glu Lys Thr Thr															
	115							120						125	
Ser Thr Gly Leu His Val Trp Trp Thr Pro Ser Ser Gly Lys Val Thr															
	130							135						140	
Ser Tyr Glu Val Gln Leu Phe Asp Glu Asn Asn Gln Lys Ile Gln Gly															
	145							150						155	
Val Gln Ile Gln Glu Ser Thr Ser Trp Asn Glu Tyr Thr Phe Phe Asn															
		165						170						175	
Leu Thr Ala Gly Ser Lys Tyr Asn Ile Ala Ile Thr Ala Val Ser Gly															
	180							185						190	
Gly Lys Arg Ser Phe Ser Val Tyr Thr Asn Gly Ser Thr Val Pro Ser															
	195							200						205	
Pro Val Lys Asp Ile Gly Ile Ser Thr Lys Ala Asn Ser Leu Leu Ile															
	210							215						220	
Ser Trp Ser His Gly Ser Gly Asn Val Glu Arg Tyr Arg Leu Met Leu															

225					230					235				240
Met	Asp	Lys	Gly	Ile	Leu	Val	His	Gly	Gly	Val	Val	Asp	Lys	His
				245					250					255
Thr	Ser	Tyr	Ala	Phe	His	Gly	Leu	Ser	Pro	Gly	Tyr	Leu	Tyr	Asn
			260					265					270	
Thr	Val	Met	Thr	Glu	Ala	Ala	Gly	Leu	Gln	Asn	Tyr	Arg	Trp	Lys
		275					280					285		
Val	Arg	Thr	Ala	Pro	Met	Glu	Val	Ser	Asn	Leu	Lys	Val	Thr	Asn
	290					295					300			
Gly	Ser	Leu	Thr	Ser	Leu	Lys	Val	Lys	Trp	Gln	Arg	Pro	Pro	Gly
305					310					315				320
Val	Asp	Ser	Tyr	Asn	Ile	Thr	Leu	Ser	His	Lys	Gly	Thr	Ile	Lys
				325					330					335
Ser	Arg	Val	Leu	Ala	Pro	Trp	Ile	Thr	Glu	Thr	His	Phe	Lys	Glu
			340					345					350	
Val	Pro	Gly	Arg	Leu	Tyr	Gln	Val	Thr	Cys	Ser	Ala	Val	Ser	Leu
	355					360					365			
Glu	Leu	Ser	Ala	Gln	Lys	Met	Ala	Val	Gly	Arg	Thr	Phe	Pro	Asp
	370					375					380			
Val	Ala	Asn	Leu	Glu	Ala	Asn	Asn	Asn	Gly	Arg	Met	Arg	Ser	Leu
385					390					395				400
Val	Ser	Trp	Ser	Pro	Pro	Ala	Gly	Asp	Trp	Glu	Gln	Tyr	Arg	Ile
				405					410					415
Leu	Phe	Asn	Asp	Ser	Val	Val	Leu	Leu	Asn	Ile	Thr	Val	Gly	Lys
			420					425					430	
Glu	Thr	Gln	Tyr	Val	Met	Asp	Gly	Thr	Gly	Leu	Val	Pro	Gly	Arg
	435						440					445		
Tyr	Glu	Val	Glu	Val	Ile	Val	Glu	Ser	Gly	Asn	Leu	Lys	Asn	Ser
	450					455					460			
Arg	Cys	Gln	Gly	Arg	Thr	Val	Pro	Leu	Ala	Val	Leu	Gln	Leu	Arg
465					470					475				480
Lys	His	Ala	Asn	Glu	Thr	Ser	Leu	Ser	Ile	Met	Trp	Gln	Thr	Pro
				485					490					495
Ala	Glu	Trp	Glu	Lys	Tyr	Ile	Ile	Ser	Leu	Ala	Asp	Arg	Asp	Leu
			500					505					510	
Leu	Ile	His	Lys	Ser	Leu	Ser	Lys	Asp	Ala	Lys	Glu	Phe	Thr	Phe
	515						520					525		
Asp	Leu	Val	Pro	Gly	Arg	Lys	Tyr	Met	Ala	Thr	Val	Thr	Ser	Ile
	530					535					540			
Gly	Asp	Leu	Lys	Asn	Ser	Ser	Val	Lys	Gly	Arg	Thr	Val	Pro	Ala
545					550				555					560
Gln	Val	Thr	Asp	Leu	His	Val	Ala	Asn	Gln	Gly	Met	Thr	Ser	Ser
				565					570					575
Phe	Thr	Asn	Trp	Thr	Gln	Ala	Gln	Gly	Asp	Val	Glu	Phe	Tyr	Gln
			580					585					590	
Leu	Leu	Ile	His	Glu	Asn	Val	Val	Ile	Lys	Asn	Glu	Ser	Ile	Ser
	595					600					605			
Glu	Thr	Ser	Arg	Tyr	Ser	Phe	His	Ser	Leu	Lys	Ser	Gly	Ser	Leu
	610					615					620			
Ser	Val	Val	Val	Thr	Thr	Val	Ser	Gly	Gly	Ile	Ser	Ser	Arg	Gln
625					630					635				640
Val	Val	Glu	Gly	Arg	Thr	Val	Pro	Ser	Ser	Val	Ser	Gly	Val	Thr
				645					650					655
Asn	Asn	Ser	Gly	Arg	Asn	Asp	Tyr	Leu	Ser	Val	Ser	Trp	Leu	Leu
			660					665					670	
Pro	Gly	Asp	Val	Asp	Asn	Tyr	Glu	Val	Thr	Leu	Ser	His	Asp	Gly
	675						680					685		
Val	Val	Gln	Ser	Leu	Val	Ile	Ala	Lys	Ser	Val	Arg	Glu	Cys	Ser
	690					695					700			
Ser	Ser	Leu	Thr	Pro	Gly	Arg	Leu	Tyr	Thr	Val	Thr	Ile	Thr	Thr
705					710					715				720
Ser	Gly	Lys	Tyr	Glu	Asn	His	Ser	Phe	Ser	Gln	Glu	Arg	Thr	Val
				725					730					735
Asp	Lys	Val	Gln	Gly	Val	Ser	Val	Ser	Asn	Ser	Ala	Arg	Ser	Asp

			740					745					750			
Leu	Arg	Val	Ser	Trp	Val	His	Ala	Thr	Gly	Asp	Phe	Asp	His	Tyr	Glu	
		755					760					765				
Val	Thr	Ile	Lys	Asn	Lys	Asn	Asn	Phe	Ile	Gln	Thr	Lys	Ser	Ile	Pro	
		770					775					780				
Lys	Ser	Glu	Asn	Glu	Cys	Val	Phe	Val	Gln	Leu	Val	Pro	Gly	Arg	Leu	
785					790					795					800	
Tyr	Ser	Val	Thr	Val	Thr	Thr	Lys	Ser	Gly	Gln	Tyr	Glu	Ala	Asn	Glu	
				805					810					815		
Gln	Gly	Asn	Gly	Arg	Thr	Ile	Pro	Glu	Pro	Val	Lys	Asp	Leu	Thr	Leu	
			820					825					830			
Arg	Asn	Arg	Ser	Thr	Glu	Asp	Leu	His	Val	Thr	Trp	Ser	Gly	Ala	Asn	
		835					840					845				
Gly	Asp	Val	Asp	Gln	Tyr	Glu	Ile	Gln	Leu	Leu	Phe	Asn	Asp	Met	Lys	
		850				855					860					
Val	Phe	Pro	Pro	Phe	His	Leu	Val	Asn	Thr	Ala	Thr	Glu	Tyr	Arg	Phe	
865					870					875					880	
Thr	Ser	Leu	Thr	Pro	Gly	Arg	Gln	Tyr	Lys	Ile	Leu	Val	Leu	Thr	Ile	
				885					890					895		
Ser	Gly	Asp	Val	Gln	Gln	Ser	Ala	Phe	Ile	Glu	Gly	Phe	Thr	Val	Pro	
			900					905					910			
Ser	Ala	Val	Lys	Asn	Ile	His	Ile	Ser	Pro	Asn	Gly	Ala	Thr	Asp	Ser	
		915					920					925				
Leu	Thr	Val	Asn	Trp	Thr	Pro	Gly	Gly	Gly	Asp	Val	Asp	Ser	Tyr	Thr	
		930				935					940					
Val	Ser	Ala	Phe	Arg	His	Ser	Gln	Lys	Val	Asp	Ser	Gln	Thr	Ile	Pro	
945					950					955					960	
Lys	His	Val	Phe	Glu	His	Thr	Phe	His	Arg	Leu	Glu	Ala	Gly	Glu	Gln	
				965					970					975		
Tyr	Gln	Ile	Met	Ile	Ala	Ser	Val	Ser	Gly	Ser	Leu	Lys	Asn	Gln	Ile	
			980						985				990			
Asn	Val	Val	Gly	Arg	Thr	Val	Pro	Ala	Ser	Val	Gln	Gly	Val	Ile	Ala	
		995					1000					1005				
Asp	Asn	Ala	Tyr	Ser	Ser	Tyr	Ser	Leu	Ile	Val	Ser	Trp	Gln	Lys	Ala	
		1010				1015					1020					
Ala	Gly	Val	Ala	Glu	Arg	Tyr	Asp	Ile	Leu	Leu	Leu	Thr	Glu	Asn	Gly	
1025				1030						1035					1040	
Ile	Leu	Leu	Arg	Asn	Thr	Ser	Glu	Pro	Ala	Thr	Thr	Lys	Gln	His	Lys	
				1045					1050					1055		
Phe	Glu	Asp	Leu	Thr	Pro	Gly	Lys	Lys	Tyr	Lys	Ile	Gln	Ile	Leu	Thr	
		1060					1065					1070				
Val	Ser	Gly	Gly	Leu	Phe	Ser	Lys	Glu	Ala	Gln	Thr	Glu	Gly	Arg	Thr	
		1075														

1250	1255	1260
Ala Pro Ser Pro Pro Ser Leu Met Ser Phe Ala Asp Ile Ala Asn Thr		
1265	1270	1275
Ser Leu Ala Ile Thr Trp Lys Gly Pro Pro Asp Trp Thr Asp Tyr Asn		1280
	1285	1290
Asp Phe Glu Leu Gln Trp Leu Pro Arg Asp Ala Leu Thr Val Phe Asn		1295
	1300	1305
Pro Tyr Asn Asn Arg Lys Ser Glu Gly Arg Ile Val Tyr Gly Leu Arg		1310
	1315	1320
Pro Gly Arg Ser Tyr Gln Phe Asn Val Lys Thr Val Ser Gly Asp Ser		1325
	1330	1335
Trp Lys Thr Tyr Ser Lys Pro Ile Phe Gly Ser Val Arg Thr Lys Pro		1340
1345	1350	1355
Asp Lys Ile Gln Asn Leu His Cys Arg Pro Gln Asn Ser Thr Ala Ile		1360
	1365	1370
Ala Cys Ser Trp Ile Pro Pro Asp Ser Asp Phe Asp Gly Tyr Ser Ile		1375
	1380	1385
Glu Cys Arg Lys Met Asp Thr Gln Glu Val Glu Phe Ser Arg Lys Leu		1390
	1395	1400
Glu Lys Glu Lys Ser Leu Leu Asn Ile Met Met Leu Val Pro His Lys		1405
	1410	1415
Arg Tyr Leu Val Ser Ile Lys Val Gln Ser Ala Gly Met Thr Ser Glu		1420
1425	1430	1435
Val Val Glu Asp Ser Thr Ile Thr Met Ile Asp Arg Pro Pro Pro Pro		1440
	1445	1450
Pro Pro His Ile Arg Val Asn Glu Lys Asp Val Leu Ile Ser Lys Ser		1455
	1460	1465
Ser Ile Asn Phe Thr Val Asn Cys Ser Trp Phe Ser Asp Thr Asn Gly		1470
	1475	1480
Ala Val Lys Tyr Phe Thr Val Val Val Arg Glu Ala Asp Gly Ser Asp		1485
	1490	1495
Glu Leu Lys Pro Glu Gln Gln His Pro Leu Pro Ser Tyr Leu Glu Tyr		1500
1505	1510	1515
Arg His Asn Ala Ser Ile Arg Val Tyr Gln Thr Asn Tyr Phe Ala Ser		1520
	1525	1530
Lys Cys Ala Glu Asn Pro Asn Ser Asn Ser Lys Ser Phe Asn Ile Lys		1535
	1540	1545
Leu Gly Ala Glu Met Glu Ser Leu Gly Gly Lys Cys Asp Pro Thr Gln		1550
	1555	1560
Gln Lys Phe Cys Asp Gly Pro Leu Lys Pro His Thr Ala Tyr Arg Ile		1565
	1570	1575
Ser Ile Arg Ala Phe Thr Gln Leu Phe Asp Glu Asp Leu Lys Glu Phe		1580
1585	1590	1595
Thr Lys Pro Leu Tyr Ser Asp Thr Phe Phe Ser Leu Pro Ile Thr Thr		1600
	1605	1610
Glu Ser Glu Pro Leu Phe Gly Ala Ile Glu Gly Val Ser Ala Gly Leu		1615
	1620	1625
Phe Leu Ile Gly Met Leu Val Ala Val Val Ala Leu Leu Ile Cys Arg		1630
	1635	1640
Gln Lys Val Ser His Gly Arg Glu Arg Pro Ser Ala Arg Leu Ser Ile		1645
	1650	1655
Arg Arg Asp Arg Pro Leu Ser Val His Leu Asn Leu Gly Gln Lys Gly		1660
1665	1670	1675
Asn Arg Lys Thr Ser Cys Pro Ile Lys Ile Asn Gln Phe Glu Gly His		1680
	1685	1690
Phe Met Lys Leu Gln Ala Asp Ser Asn Tyr Leu Leu Ser Lys Glu Tyr		1695
	1700	1705
Glu Glu Leu Lys Asp Val Gly Arg Asn Gln Ser Cys Asp Ile Ala Leu		1710
	1715	1720
Leu Pro Glu Asn Arg Gly Lys Asn Arg Tyr Asn Asn Ile Leu Pro Tyr		1725
	1730	1735
Asp Ala Thr Arg Val Lys Leu Ser Asn Val Asp Asp Asp Pro Cys Ser		1740
1745	1750	1755
Asp Tyr Ile Asn Ala Ser Tyr Ile Pro Gly Asn Asn Phe Arg Arg Glu		1760


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<210> 3452
<211> 339
<212> PRT
<213> Homo sapiens
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<400> 3452																
Phe	Phe	Arg	Ser	Ser	Ser	Asp	Asn	Gly	Ser	Pro	Ile	Arg	Gln	Tyr	Glu	
1				5					10					15		
His	Ser	Thr	Pro	Ala	His	Gln	Gly	Pro	Val	Met	Gly	Leu	Glu	Gly	Lys	
			20					25					30			
Ser	Ala	Arg	Asn	Ser	Gln	Leu	Arg	Ile	Val	Leu	Val	Gly	Lys	Thr	Gly	
		35					40					45				
Ala	Gly	Lys	Ser	Ala	Thr	Gly	Asn	Ser	Ile	Leu	Gly	Arg	Lys	Val	Phe	
	50					55					60					
His	Ser	Gly	Thr	Ala	Ala	Lys	Ser	Ile	Thr	Lys	Lys	Cys	Glu	Lys	Arg	
65				70						75					80	
Ser	Ser	Ser	Trp	Lys	Glu	Thr	Glu	Leu	Val	Val	Val	Asp	Thr	Pro	Gly	
				85					90					95		
Ile	Phe	Asp	Thr	Glu	Val	Pro	Asn	Ala	Glu	Thr	Ser	Lys	Glu	Ile	Ile	
			100					105					110			
Arg	Cys	Ile	Leu	Leu	Thr	Ser	Pro	Gly	Pro	His	Ala	Leu	Leu	Leu	Val	
		115					120					125				
Val	Pro	Leu	Gly	Arg	Tyr	Thr	Glu	Glu	Glu	His	Lys	Ala	Thr	Glu	Lys	
		130				135					140					
Ile	Leu	Lys	Met	Phe	Gly	Glu	Arg	Ala	Arg	Ser	Phe	Met	Ile	Leu	Ile	
145					150					155					160	
Phe	Thr	Arg	Lys	Asp	Asp	Leu	Gly	Asp	Thr	Asn	Leu	His	Asp	Tyr	Leu	
				165					170					175		
Arg	Glu	Ala	Pro	Glu	Asp	Ile	Gln	Asp	Leu	Met	Asp	Ile	Phe	Gly	Asp	

			180					185				190					
Arg	Tyr	Cys	Ala	Leu	Asn	Asn	Lys	Ala	Thr	Gly	Ala	Glu	Gln	Glu	Ala		
		195					200					205					
Gln	Arg	Ala	Gln	Leu	Leu	Gly	Leu	Ile	Gln	Arg	Val	Val	Arg	Glu	Asn		
	210					215					220						
Lys	Glu	Gly	Cys	Tyr	Thr	Asn	Arg	Met	Tyr	Gln	Arg	Ala	Glu	Glu	Glu		
225					230					235					240		
Ile	Gln	Lys	Gln	Thr	Gln	Ala	Met	Gln	Glu	Leu	His	Arg	Val	Glu	Leu		
				245					250					255			
Glu	Arg	Glu	Lys	Ala	Arg	Ile	Arg	Glu	Glu	Tyr	Glu	Glu	Lys	Ile	Arg		
		260						265					270				
Lys	Leu	Glu	Asp	Lys	Val	Glu	Gln	Glu	Lys	Arg	Lys	Lys	Gln	Met	Glu		
	275						280					285					
Lys	Lys	Leu	Ala	Glu	Gln	Glu	Ala	His	Tyr	Ala	Val	Arg	Gln	Gln	Arg		
	290					295					300						
Ala	Arg	Thr	Glu	Val	Glu	Ser	Lys	Asp	Gly	Ile	Leu	Glu	Leu	Ile	Met		
305					310					315					320		
Thr	Ala	Leu	Gln	Ile	Ala	Ser	Phe	Ile	Leu	Leu	Arg	Leu	Phe	Ala	Glu		
				325					330					335			
Asp																	
337																	

<210> 3453

<211> 721

<212> PRT

<213> Homo sapiens

<400> 3453

Gly	Pro	Ile	Thr	Phe	Leu	Lys	Lys	Lys	Ala	Lys	Met	Lys	Asp	Met	Pro		
1				5					10					15			
Leu	Arg	Ile	His	Val	Leu	Leu	Gly	Leu	Ala	Ile	Thr	Thr	Leu	Val	Gln		
		20					25						30				
Ala	Val	Asp	Lys	Lys	Val	Asp	Cys	Pro	Arg	Leu	Cys	Thr	Cys	Glu	Ile		
	35					40					45						
Arg	Pro	Trp	Phe	Thr	Pro	Arg	Ser	Ile	Tyr	Met	Glu	Ala	Ser	Thr	Val		
	50					55				60							
Asp	Cys	Asn	Asp	Leu	Gly	Leu	Leu	Thr	Phe	Pro	Ala	Arg	Leu	Pro	Ala		
65				70					75					80			
Asn	Thr	Gln	Ile	Leu	Leu	Leu	Gln	Thr	Asn	Asn	Ile	Ala	Lys	Ile	Glu		
			85				90							95			
Tyr	Ser	Thr	Asp	Phe	Pro	Val	Asn	Leu	Thr	Gly	Leu	Asp	Leu	Ser	Gln		
		100					105					110					
Asn	Asn	Leu	Ser	Ser	Val	Thr	Asn	Ile	Asn	Gly	Lys	Lys	Met	Pro	Gln		
	115					120						125					
Leu	Leu	Ser	Val	Tyr	Leu	Glu	Glu	Asn	Lys	Leu	Thr	Glu	Leu	Pro	Glu		
	130					135					140						
Lys	Cys	Leu	Ser	Glu	Leu	Ser	Asn	Leu	Gln	Glu	Leu	Tyr	Ile	Asn	His		
145				150					155					160			
Asn	Leu	Leu	Ser	Thr	Ile	Ser	Pro	Gly	Ala	Phe	Ile	Gly	Leu	His	Asn		
			165				170							175			
Leu	Leu	Arg	Leu	His	Leu	Asn	Ser	Asn	Arg	Leu	Gln	Met	Ile	Asn	Ser		
	180					185						190					
Lys	Trp	Phe	Asp	Ala	Leu	Pro	Asn	Leu	Glu	Ile	Leu	Met	Ile	Gly	Glu		
	195					200						205					
Asn	Pro	Ile	Ile	Arg	Ile	Lys	Asp	Met	Asn	Phe	Lys	Pro	Leu	Ile	Asn		
	210				215						220						
Leu	Arg	Ser	Leu	Val	Ile	Ala	Gly	Ile	Asn	Leu	Thr	Glu	Ile	Pro	Asp		
225				230					235					240			
Asn	Ala	Leu	Val	Gly	Leu	Glu	Asn	Leu	Glu	Ser	Ile	Ser	Phe	Tyr	Asp		
			245				250							255			
Asn	Arg	Leu	Ile	Lys	Val	Pro	His	Val	Ala	Leu	Gln	Lys	Val	Val	Asn		

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<210> 3454
<211> 535
<212> PRT
<213> Homo sapiens
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<400> 3454

Glu	Arg	Tyr	Leu	Phe	Ala	Thr	Tyr	Val	Ala	Pro	Ser	Ala	Thr	Leu	Asp
1				5					10					15	
Ile	Gly	Leu	Gln	Gln	Glu	Lys	Lys	Lys	Glu	Ile	Tyr	Met	Lys	Ile	Gln
			20					25					30		
Pro	Pro	Phe	Glu	Asp	Leu	Phe	Asp	Thr	Ala	Glu	Glu	Tyr	Ile	Leu	Leu
		35					40					45			
Leu	Leu	Leu	Glu	Pro	Trp	Thr	Lys	Met	Val	Lys	Ser	Asp	Gln	Ile	Ala
		50				55					60				
Tyr	Lys	Lys	Val	Glu	Leu	Val	Glu	Glu	Thr	Arg	Gln	Leu	Asp	Ser	Thr
65					70					75					80
Tyr	Phe	Arg	Lys	Leu	Gln	Ala	Leu	His	Lys	Glu	Thr	Phe	Ser	Lys	Lys
			85						90					95	
Ala	Glu	Asp	Thr	Thr	Cys	Glu	Ile	Gly	Thr	Gly	Ile	Leu	Ser	Leu	Ser
			100					105					110		
Asn	Val	Ser	Lys	Arg	Thr	Glu	Tyr	Trp	Asp	Asn	Val	Pro	Ala	Glu	Tyr
		115					120					125			
Lys	His	Phe	Lys	Phe	Ser	Asp	Leu	Leu	Asn	Asn	Lys	Leu	Glu	Phe	Glu
	130					135					140				
His	Phe	Arg	Gln	Phe	Leu	Glu	Thr	His	Ser	Ser	Ser	Met	Asp	Leu	Met
145					150					155					160
Cys	Trp	Thr	Asp	Ile	Glu	Gln	Phe	Arg	Arg	Ile	Thr	Tyr	Arg	Asp	Arg
			165						170					175	
Asn	Gln	Arg	Lys	Ala	Lys	Ser	Ile	Tyr	Ile	Lys	Asn	Lys	Tyr	Leu	Asn
		180						185					190		
Lys	Lys	Tyr	Phe	Phe	Gly	Pro	Asn	Ser	Pro	Ala	Ser	Leu	Tyr	Gln	Gln
		195				200						205			
Asn	Gln	Val	Met	His	Leu	Ser	Gly	Gly	Trp	Gly	Lys	Ile	Leu	His	Glu
	210					215					220				
Gln	Leu	Asp	Ala	Pro	Val	Leu	Val	Glu	Ile	Gln	Lys	His	Val	Gln	Asn
225					230					235					240
Arg	Leu	Glu	Asn	Val	Trp	Leu	Pro	Leu	Phe	Leu	Ala	Ser	Glu	Gln	Phe
			245						250					255	
Ala	Ala	Arg	Gln	Lys	Ile	Lys	Val	Gln	Met	Lys	Asp	Ile	Ala	Glu	Glu
		260						265					270		
Leu	Leu	Leu	Gln	Lys	Ala	Glu	Lys	Lys	Ile	Gly	Val	Trp	Lys	Pro	Val
		275					280					285			
Glu	Ser	Lys	Trp	Ile	Ser	Ser	Ser	Cys	Lys	Ile	Ile	Ala	Phe	Arg	Lys
	290					295					300				
Ala	Leu	Leu	Asn	Pro	Val	Thr	Ser	Arg	Gln	Phe	Gln	Arg	Phe	Val	Ala
305					310					315					320
Leu	Lys	Gly	Asp	Leu	Leu	Glu	Asn	Gly	Leu	Leu	Phe	Trp	Gln	Glu	Val
			325					330						335	
Gln	Lys	Tyr	Lys	Asp	Leu	Cys	His	Ser	His	Cys	Asp	Glu	Ser	Val	Ile
		340						345					350		
Gln	Lys	Lys	Ile	Thr	Thr	Ile	Ile	Asn	Cys	Phe	Ile	Asn	Ser	Ser	Ile
		355					360					365			
Pro	Pro	Ala	Leu	Gln	Ile	Asp	Ile	Pro	Val	Glu	Gln	Ala	Gln	Lys	Ile
		370				375						380			
Ile	Glu	His	Arg	Lys	Glu	Leu	Gly	Pro	Tyr	Val	Phe	Arg	Glu	Ala	Gln
385					390					395					400
Met	Thr	Phe	Leu	Gly	Val	Met	Phe	Lys	Phe	Trp	Pro	Gln	Phe	Cys	Glu
			405					410						415	
Phe	Arg	Lys	Asn	Leu	Thr	Asp	Glu	Asn	Ile	Met	Ser	Val	Leu	Glu	Arg
		420						425					430		
Arg	Gln	Glu	Tyr	Asn	Lys	Gln	Lys	Lys	Lys	Leu	Ala	Val	Leu	Gln	Asn
		435					440					445			
Asp	Glu	Lys	Ser	Gly	Lys	Asp	Gly	Ile	Lys	Gln	Tyr	Ala	Asn	Thr	Ser
	450					455					460				
Val	Pro	Ala	Ile	Lys	Thr	Ala	Leu	Leu	Ser	Asp	Ser	Phe	Leu	Gly	Leu
465					470					475					480
Gln	Pro	Tyr	Gly	Arg	Gln	Pro	Thr	Trp	Cys	Tyr	Ser	Lys	Tyr	Ile	Glu

				485					490					495			
Ala	Leu	Glu	Gln	Glu	Arg	Ile	Leu	Leu	Lys	Ile	Gln	Glu	Glu	Leu	Glu		
			500					505					510				
Lys	Ser	Cys	Leu	Gln	Ala	Cys	Asn	Leu	Ser	Gln	Ile	Leu	Arg	Leu	Ala		
		515					520					525					
Leu	Gln	Leu	Cys	Leu													
	530			533													

<210> 3455

<211> 1035

<212> PRT

<213> Homo sapiens

<400> 3455

Ala	Pro	Thr	Ala	Gln	Ala	Met	Met	Ser	Phe	Gly	Gly	Ala	Asp	Ala	Leu		
1				5					10					15			
Leu	Gly	Ala	Pro	Phe	Ala	Pro	Leu	His	Gly	Gly	Gly	Ser	Leu	His	Tyr		
			20				25						30				
Ala	Leu	Ala	Arg	Lys	Gly	Gly	Ala	Gly	Gly	Thr	Arg	Ser	Ala	Ala	Gly		
		35					40					45					
Ser	Ser	Ser	Gly	Phe	His	Ser	Trp	Thr	Arg	Thr	Ser	Val	Ser	Ser	Val		
	50					55					60						
Ser	Ala	Ser	Pro	Ser	Arg	Phe	Arg	Gly	Ala	Gly	Ala	Ala	Ser	Ser	Thr		
	65				70					75					80		
Asp	Ser	Leu	Asp	Thr	Leu	Ser	Asn	Gly	Pro	Glu	Gly	Cys	Met	Val	Ala		
				85				90					95				
Val	Ala	Thr	Ser	Arg	Ser	Glu	Lys	Glu	Gln	Leu	Gln	Ala	Leu	Asn	Asp		
			100					105					110				
Arg	Phe	Ala	Gly	Tyr	Ile	Asp	Lys	Val	Arg	Gln	Leu	Glu	Ala	His	Asn		
		115					120					125					
Arg	Ser	Leu	Glu	Gly	Glu	Ala	Ala	Ala	Leu	Arg	Gln	Gln	Gln	Ala	Gly		
	130					135					140						
Arg	Ser	Ala	Met	Gly	Glu	Leu	Tyr	Glu	Arg	Glu	Val	Arg	Glu	Met	Arg		
	145				150					155					160		
Gly	Ala	Val	Leu	Arg	Leu	Gly	Ala	Ala	Arg	Gly	Gln	Leu	Arg	Leu	Glu		
				165					170						175		
Gln	Glu	His	Leu	Leu	Glu	Asp	Ile	Ala	His	Val	Arg	Gln	Arg	Leu	Asp		
			180					185					190				
Asp	Glu	Ala	Arg	Gln	Arg	Glu	Glu	Ala	Glu	Ala	Ala	Ala	Arg	Ala	Leu		
	195						200					205					
Ala	Arg	Phe	Ala	Gln	Glu	Ala	Glu	Ala	Ala	Arg	Val	Asp	Leu	Gln	Lys		
	210					215					220						
Lys	Ala	Gln	Ala	Leu	Gln	Glu	Glu	Cys	Gly	Tyr	Leu	Arg	Arg	His	His		
	225				230					235					240		
Gln	Glu	Glu	Val	Gly	Glu	Leu	Leu	Gly	Gln	Ile	Gln	Gly	Ser	Gly	Ala		
				245					250					255			
Ala	Gln	Ala	Gln	Met	Gln	Ala	Glu	Thr	Arg	Asp	Ala	Leu	Lys	Cys	Asp		
			260					265					270				
Val	Thr	Ser	Ala	Leu	Arg	Glu	Ile	Arg	Ala	Gln	Leu	Glu	Gly	His	Ala		
		275					280					285					
Val	Gln	Ser	Thr	Leu	Gln	Ser	Glu	Glu	Trp	Phe	Arg	Val	Arg	Leu	Asp		
	290				295						300						
Arg	Leu	Ser	Glu	Ala	Ala	Lys	Val	Asn	Thr	Asp	Ala	Met	Arg	Ser	Ala		
	305				310					315					320		
Gln	Glu	Glu	Ile	Thr	Glu	Tyr	Arg	Arg	Gln	Leu	Gln	Ala	Arg	Thr	Thr		
				325					330					335			
Glu	Leu	Glu	Ala	Leu	Lys	Ser	Thr	Lys	Asp	Ser	Leu	Glu	Arg	Gln	Arg		
			340					345				350					
Ser	Glu	Leu	Glu	Asp	Arg	His	Gln	Ala	Asp	Ile	Ala	Ser	Tyr	Gln	Glu		
	355						360					365					
Ala	Ile	Gln	Gln	Leu	Asp	Ala	Glu	Leu	Arg	Asn	Thr	Lys	Trp	Glu	Met		

370	375	380
Ala Ala Gln Leu Arg Glu Tyr Gln Asp Leu Leu Asn Val Lys Met Ala		
385	390	395
Leu Asp Ile Glu Ile Ala Ala Tyr Arg Lys Leu Leu Glu Gly Glu Glu		400
	405	410
Cys Arg Ile Gly Phe Gly Pro Ile Pro Phe Ser Leu Pro Glu Gly Leu		415
	420	425
Pro Lys Ile Pro Ser Val Ser Thr His Ile Lys Val Lys Ser Glu Glu		430
	435	440
Lys Ile Lys Val Val Glu Lys Ser Glu Lys Glu Thr Val Ile Val Glu		445
	450	455
Glu Gln Thr Glu Glu Thr Gln Val Thr Glu Glu Val Thr Glu Glu Glu		460
465	470	475
Asp Lys Glu Ala Lys Glu Glu Glu Gly Lys Glu Glu Glu Gly Gly Glu		480
	485	490
Glu Glu Glu Ala Glu Gly Gly Glu Glu Glu Thr Lys Ser Pro Pro Ala		495
	500	505
Glu Glu Ala Ala Ser Pro Glu Lys Glu Ala Lys Ser Pro Val Lys Glu		510
	515	520
Glu Ala Lys Ser Pro Ala Glu Ala Lys Ser Pro Glu Lys Glu Glu Ala		525
	530	535
Lys Ser Pro Ala Glu Val Lys Ser Pro Glu Lys Ala Lys Ser Pro Ala		540
545	550	555
Lys Glu Glu Ala Lys Ser Pro Pro Glu Ala Lys Ser Pro Glu Lys Asp		560
	565	570
Gly Lys Gln Asn Phe Gln Ala Glu Val Lys Ser Pro Glu Lys Ala Lys		575
	580	585
Ser Pro Ala Lys Glu Glu Ala Lys Ser Pro Ala Glu Ala Lys Ser Pro		590
	595	600
Glu Lys Ala Lys Ser Pro Val Lys Glu Glu Ala Lys Ser Pro Ala Glu		605
	610	615
Ala Lys Ser Pro Val Lys Glu Glu Ala Lys Ser Pro Ala Glu Val Lys		620
625	630	635
Ser Pro Glu Lys Ala Lys Ser Pro Thr Lys Glu Glu Ala Lys Ser Pro		640
	645	650
Glu Lys Ala Lys Ser Pro Glu Lys Ala Lys Ser Pro Glu Lys Glu Glu		655
	660	665
Ala Lys Ser Pro Glu Lys Ala Lys Ser Pro Val Lys Ala Glu Ala Lys		670
	675	680
Ser Pro Glu Lys Ala Lys Ser Pro Val Lys Ala Glu Ala Lys Ser Pro		685
	690	695
Glu Lys Ala Lys Ser Pro Val Lys Glu Glu Ala Lys Ser Pro Glu Lys		700
705	710	715
Ala Lys Ser Pro Val Lys Glu Glu Ala Lys Ser Pro Glu Lys Ala Lys		720
	725	730
Ser Pro Val Lys Glu Glu Ala Lys Thr Pro Glu Lys Ala Lys Ser Pro		735
	740	745
Val Lys Glu Glu Ala Lys Ser Pro Glu Lys Ala Lys Ser Pro Glu Lys		750
	755	760
Ala Lys Thr Leu Asp Val Lys Ser Pro Glu Ala Lys Thr Pro Ala Lys		765
	770	775
Glu Glu Ala Arg Ser Pro Ala Asp Lys Phe Pro Glu Lys Ala Lys Ser		780
785	790	795
Pro Val Lys Glu Glu Val Lys Ser Pro Glu Lys Ala Lys Ser Pro Leu		800
	805	810
Lys Glu Asp Ala Lys Ala Pro Glu Lys Glu Ile Pro Lys Lys Glu Glu		815
	820	825
Val Lys Ser Pro Val Lys Glu Glu Lys Pro Gln Glu Val Lys Val		830
	835	840
Lys Glu Pro Pro Lys Lys Ala Glu Glu Glu Lys Ala Pro Ala Thr Pro		845
	850	855
Lys Thr Glu Glu Lys Lys Asp Ser Lys Lys Glu Glu Ala Pro Lys Lys		860
865	870	875
Glu Ala Pro Lys Pro Lys Val Glu Glu Lys Lys Glu Pro Ala Val Glu		880

				885						890					895				
Lys	Pro	Lys	Glu	Ser	Lys	Val	Glu	Ala	Lys	Lys	Glu	Glu	Ala	Glu	Asp				
			900					905					910						
Lys	Lys	Lys	Val	Pro	Thr	Pro	Glu	Lys	Glu	Ala	Pro	Ala	Lys	Val	Glu				
		915					920					925							
Val	Lys	Glu	Asp	Ala	Lys	Pro	Lys	Glu	Lys	Thr	Glu	Val	Ala	Lys	Lys				
	930					935					940								
Glu	Pro	Asp	Asp	Ala	Lys	Ala	Lys	Glu	Pro	Ser	Lys	Pro	Ala	Glu	Lys				
945					950				955						960				
Lys	Glu	Ala	Ala	Pro	Glu	Lys	Lys	Asp	Thr	Lys	Glu	Glu	Lys	Ala	Lys				
			965					970					975						
Lys	Pro	Glu	Glu	Lys	Pro	Lys	Thr	Glu	Ala	Lys	Ala	Lys	Glu	Asp	Asp				
		980						985					990						
Lys	Thr	Leu	Ser	Lys	Glu	Pro	Ser	Lys	Pro	Lys	Ala	Glu	Lys	Ala	Glu				
	995					1000						1005							
Lys	Ser	Ser	Ser	Thr	Asp	Gln	Lys	Asp	Ser	Lys	Pro	Pro	Glu	Lys	Ala				
1010						1015					1020								
Thr	Glu	Asp	Lys	Ala	Ala	Lys	Gly	Lys											
1025					1030			1033											

<210> 3456

<211> 403

<212> PRT

<213> Homo sapiens

<400> 3456

Tyr	Leu	Ser	Phe	Ile	Pro	Gly	His	Ala	Ser	Lys	Ser	Ala	Pro	Met	Asn				
1				5				10						15					
Gly	His	Cys	Phe	Ala	Glu	Asn	Gly	Pro	Ser	Gln	Lys	Ser	Ser	Leu	Pro				
			20					25					30						
Pro	Leu	Leu	Ile	Pro	Pro	Ser	Glu	Asn	Leu	Gly	Pro	His	Glu	Glu	Asp				
	35					40						45							
Gln	Val	Val	Cys	Gly	Phe	Lys	Lys	Leu	Thr	Val	Asn	Gly	Val	Cys	Ala				
	50					55					60								
Ser	Thr	Pro	Pro	Leu	Thr	Pro	Ile	Lys	Asn	Ser	Pro	Ser	Leu	Phe	Pro				
65					70				75						80				
Cys	Ala	Pro	Leu	Cys	Glu	Arg	Gly	Ser	Arg	Pro	Leu	Pro	Pro	Leu	Pro				
			85					90					95						
Ile	Ser	Glu	Ala	Leu	Ser	Leu	Asp	Asp	Thr	Asp	Cys	Glu	Val	Glu	Phe				
			100					105					110						
Leu	Thr	Ser	Ser	Asp	Thr	Asp	Phe	Leu	Leu	Glu	Asp	Ser	Thr	Leu	Ser				
	115						120					125							
Asp	Phe	Lys	Tyr	Asp	Val	Pro	Gly	Arg	Arg	Ser	Phe	Arg	Gly	Cys	Gly				
130						135					140								
Gln	Ile	Asn	Tyr	Ala	Tyr	Phe	Asp	Thr	Pro	Ala	Val	Ser	Ala	Ala	Asp				
145					150				155					160					
Leu	Ser	Tyr	Val	Ser	Asp	Gln	Asn	Gly	Gly	Val	Pro	Asp	Pro	Asn	Pro				
				165				170						175					
Pro	Pro	Pro	Gln	Thr	His	Arg	Arg	Leu	Arg	Arg	Ser	His	Ser	Gly	Pro				
			180					185					190						
Ala	Gly	Ser	Phe	Asn	Lys	Pro	Ala	Ile	Arg	Ile	Ser	Asn	Cys	Cys	Ile				
	195					200					205								
His	Arg	Ala	Ser	Pro	Asn	Ser	Asp	Glu	Asp	Lys	Pro	Glu	Val	Pro	Pro				
	210					215					220								
Arg	Val	Pro	Ile	Pro	Pro	Arg	Pro	Val	Lys	Pro	Asp	Tyr	Arg	Arg	Trp				
225					230				235						240				
Ser	Ala	Glu	Val	Thr	Ser	Ser	Thr	Tyr	Ser	Asp	Glu	Asp	Arg	Pro	Pro				
			245					250					255						
Lys	Val	Pro	Pro	Arg	Glu	Pro	Leu	Ser	Pro	Ser	Asn	Ser	Arg	Thr	Pro				
			260					265					270						
Ser	Pro	Lys	Ser	Leu	Pro	Ser	Tyr	Leu	Asn	Gly	Val	Met	Pro	Pro	Thr				

275	280	285
Gln Ser Phe Ala Pro Asp	Pro Lys Tyr Val Ser	Ser Lys Ala Leu Gln
290	295	300
Arg Gln Asn Ser Glu Gly	Ser Ala Ser Lys Val	Pro Cys Ile Leu Pro
305	310	315
Ile Ile Glu Asn Gly Lys	Lys Val Ser Ser Thr	His Tyr Tyr Leu Leu
325	330	335
Pro Glu Arg Pro Pro Tyr	Leu Asp Lys Tyr Glu	Lys Phe Phe Arg Glu
340	345	350
Ala Lys Lys Lys Asn Gly	Gly Ala Gln Ile Gln	Pro Leu Pro Ala Asp
355	360	365
Cys Gly Ile Ser Ser Ala	Thr Glu Lys Pro Asp	Ser Lys Thr Lys Met
370	375	380
Asp Leu Gly Gly His Val	Lys Arg Lys His Leu	Ser Tyr Val Gly Thr
385	390	395
Pro		400
401		

<210> 3457
 <211> 1624
 <212> PRT
 <213> Homo sapiens

<400> 3457

Phe	Ile	Leu	Ser	Ser	Ser	Ser	Ala	Ser	Ser	Glu	His	Phe	His	His
1			5				10						15	
His	Tyr	Ser	Phe	Gly	Asn	Trp	Trp	Pro	Gly	Ser	Phe	Lys	Gly	His
			20				25						30	Arg
Met	Ser	Leu	Pro	Phe	Tyr	Gln	Arg	Cys	His	Gln	His	Tyr	Asp	Leu
			35				40					45		Ser
Tyr	Arg	Asn	Lys	Asp	Val	Arg	Ser	Thr	Val	Ser	His	Tyr	Gln	Arg
			50				55					60		Glu
Lys	Lys	Arg	Ser	Ala	Val	Tyr	Thr	Gln	Gly	Ser	Thr	Ala	Tyr	Ser
			65				70					75		80
Arg	Ser	Ser	Ala	Ala	His	Arg	Arg	Glu	Ser	Glu	Ala	Phe	Arg	Arg
			85							90				95
Ser	Ala	Ser	Ser	Ser	Gln	Gln	Gln	Ala	Ser	Gln	His	Ala	Leu	Ser
			100							105			110	Ser
Glu	Val	Ser	Arg	Lys	Ala	Ala	Ser	Ala	Tyr	Asp	Tyr	Gly	Ser	Ser
			115							120			125	His
Gly	Leu	Thr	Asp	Ser	Ser	Leu	Leu	Leu	Asp	Asp	Tyr	Ser	Ser	Lys
			130				135						140	Leu
Ser	Pro	Lys	Pro	Lys	Arg	Ala	Lys	His	Ser	Leu	Leu	Ser	Gly	Glu
			145				150				155			160
Lys	Glu	Asn	Leu	Pro	Ser	Asp	Tyr	Met	Val	Pro	Ile	Phe	Ser	Gly
			165							170				175
Gln	Lys	His	Val	Ser	Gly	Ile	Thr	Asp	Thr	Glu	Glu	Glu	Arg	Ile
			180							185				190
Glu	Ala	Ala	Ala	Tyr	Ile	Ala	Gln	Arg	Asn	Leu	Leu	Ala	Ser	Glu
			195							200				205
Gly	Ile	Thr	Thr	Pro	Lys	Gln	Ser	Thr	Ala	Ser	Lys	Gln	Thr	Thr
			210				215					220		Ala
Ser	Lys	Gln	Ser	Thr	Ala	Ser	Lys	Gln	Ser	Thr	Ala	Ser	Lys	Gln
			225				230				235			240
Thr	Ala	Ser	Arg	Gln	Ser	Thr	Ala	Ser	Arg	Gln	Ser	Val	Val	Ser
			245							250				255
Gln	Ala	Thr	Ser	Ala	Leu	Gln	Gln	Glu	Glu	Thr	Ser	Glu	Lys	Lys
			260							265				270
Arg	Lys	Val	Val	Ile	Arg	Gly	Lys	Ala	Glu	Arg	Leu	Ser	Leu	Arg
			275											Lys
Thr	Leu	Glu	Glu	Thr	Glu	Thr	Tyr	His	Ala	Lys	Leu	Asn	Glu	Asp
														His

290	295	300
Leu Leu His Ala Pro Glu	Phe Ile Ile Lys Pro	Arg Ser His Thr Val
305	310	315
Trp Glu Lys Glu Asn Val	Lys Leu His Cys Ser	Ile Ala Gly Trp Pro
325	330	335
Glu Pro Arg Val Thr Trp	Tyr Lys Asn Gln Val	Pro Ile Asn Val His
340	345	350
Ala Asn Pro Gly Lys Tyr	Ile Ile Glu Ser Arg	Tyr Gly Met His Thr
355	360	365
Leu Glu Ile Asn Ala Cys	Asp Phe Glu Asp Thr	Ala Gln Tyr Arg Ala
370	375	380
Ser Ala Met Asn Val Lys	Gly Glu Leu Ser Ala	Tyr Ala Ser Val Val
385	390	395
Val Lys Arg Tyr Lys Gly	Glu Phe Asp Glu Thr	Arg Phe His Ala Gly
405	410	415
Ala Ser Thr Met Pro Leu	Ser Phe Gly Val Thr	Pro Tyr Gly Tyr Ala
420	425	430
Ser Arg Phe Glu Ile His	Phe Asp Asp Lys Phe	Asp Val Ser Phe Gly
435	440	445
Arg Glu Gly Glu Thr Met	Ser Leu Gly Cys Arg	Val Val Ile Thr Pro
450	455	460
Glu Ile Lys His Phe Gln	Pro Glu Ile Gln Trp	Tyr Arg Asn Gly Val
465	470	475
Pro Leu Ser Pro Ser Lys	Trp Val Gln Thr Leu	Trp Ser Gly Glu Arg
485	490	495
Ala Thr Leu Thr Phe Ser	His Leu Asn Lys Glu	Asp Glu Gly Leu Tyr
500	505	510
Thr Ile Arg Val Arg Met	Gly Glu Tyr Tyr Glu	Gln Tyr Ser Ala Tyr
515	520	525
Val Phe Val Arg Asp Ala	Asp Ala Glu Ile Glu	Gly Ala Pro Ala Ala
530	535	540
Pro Leu Asp Val Lys Cys	Leu Glu Ala Asn Lys	Asp Tyr Ile Ile Ile
545	550	555
Ser Trp Lys Gln Pro Ala	Val Asp Gly Gly Ser	Pro Ile Leu Gly Tyr
565	570	575
Phe Ile Asp Lys Cys Glu	Val Gly Thr Asp Ser	Trp Ser Gln Cys Asn
580	585	590
Asp Thr Pro Val Lys Phe	Ala Arg Phe Pro Val	Thr Gly Leu Ile Glu
595	600	605
Gly Arg Ser Tyr Ile Phe	Arg Val Arg Ala Val	Asn Lys Met Gly Ile
610	615	620
Gly Phe Pro Ser Arg Val	Ser Glu Pro Val Ala	Ala Leu Asp Pro Ala
625	630	635
Glu Lys Ala Arg Leu Lys	Ser Pro Pro Leu Ser	Thr Leu Asp Trp Thr
645	650	655
Val Ile Val Thr Glu Glu	Glu Pro Ser Glu Gly	Ile Val Pro Gly Pro
660	665	670
Pro Thr Asp Leu Ser Val	Thr Glu Ala Thr Arg	Ser Tyr Val Val Leu
675	680	685
Ser Trp Lys Pro Pro Gly	Gln Arg Gly His Glu	Gly Ile Met Tyr Phe
690	695	700
Val Glu Lys Cys Glu Ala	Gly Thr Glu Asn Trp	Gln Arg Val Asn Thr
705	710	715
Glu Leu Pro Val Lys Ser	Pro Arg Phe Ala Leu	Phe Asp Leu Ala Glu
725	730	735
Gly Lys Ser Tyr Cys Phe	Arg Val Arg Cys Ser	Asn Ser Ala Gly Val
740	745	750
Gly Glu Pro Ser Glu Ala	Thr Glu Val Thr Val	Val Gly Asp Lys Leu
755	760	765
Asp Ile Pro Lys Ala Pro	Gly Lys Ile Ile Pro	Ser Arg Asn Thr Asp
770	775	780
Thr Ser Val Val Val Ser	Trp Glu Glu Ser Lys	Asp Ala Lys Glu Leu
785	790	795
Val Gly Tyr Tyr Ile Glu	Ala Asn Val Ala Gly	Ser Gly Lys Trp Glu

				805					810					815			
Pro	Cys	Asn	Asn	Asn	Pro	Val	Lys	Thr	His	Arg	Phe	Thr	Cys	His	Gly		
			820					825					830				
Leu	Val	Thr	Gly	Gln	Ser	Tyr	Ile	Phe	Arg	Val	Arg	Ala	Val	Asn	Ala		
		835					840					845					
Ala	Gly	Leu	Ser	Glu	Tyr	Ser	Gln	Asp	Ser	Glu	Ala	Ile	Glu	Val	Lys		
	850					855					860						
Ala	Ala	Ile	Ala	Pro	Pro	Ser	Pro	Pro	Cys	Asp	Ile	Thr	Cys	Leu	Glu		
865					870				875						880		
Ser	Phe	Arg	Asp	Ser	Met	Val	Leu	Gly	Trp	Lys	Gln	Pro	Asp	Lys	Ile		
			885					890						895			
Gly	Gly	Ala	Glu	Ile	Thr	Gly	Tyr	Tyr	Val	Asn	Tyr	Arg	Glu	Val	Ile		
			900					905					910				
Asp	Gly	Val	Pro	Gly	Lys	Trp	Arg	Glu	Ala	Asn	Val	Lys	Ala	Val	Ser		
	915						920					925					
Glu	Glu	Ala	Tyr	Lys	Ile	Ser	Asn	Leu	Lys	Glu	Asn	Met	Val	Tyr	Gln		
	930					935					940						
Phe	Gln	Val	Ala	Ala	Met	Asn	Met	Ala	Gly	Leu	Gly	Ala	Pro	Ser	Ala		
945					950					955					960		
Val	Ser	Glu	Cys	Phe	Lys	Cys	Glu	Glu	Trp	Thr	Ile	Ala	Val	Pro	Gly		
			965					970						975			
Pro	Pro	His	Ser	Leu	Lys	Cys	Ser	Glu	Val	Arg	Lys	Asp	Ser	Leu	Val		
			980					985					990				
Leu	Gln	Trp	Lys	Pro	Pro	Val	His	Ser	Gly	Arg	Thr	Pro	Val	Thr	Gly		
	995					1000						1005					
Tyr	Phe	Val	Asp	Leu	Lys	Glu	Ala	Lys	Ala	Lys	Glu	Asp	Gln	Trp	Arg		
	1010				1015						1020						
Gly	Leu	Asn	Glu	Ala	Ala	Ile	Lys	Asn	Val	Tyr	Leu	Lys	Val	Arg	Gly		
1025				1030				1035						1040			
Leu	Lys	Glu	Gly	Val	Ser	Tyr	Val	Phe	Arg	Val	Arg	Ala	Ile	Asn	Gln		
			1045					1050				1055					
Ala	Gly	Val	Gly	Lys	Pro	Ser	Asp	Leu	Ala	Gly	Pro	Val	Val	Ala	Glu		
		1060						1065				1070					
Thr	Arg	Pro	Gly	Thr	Lys	Glu	Val	Val	Val	Asn	Val	Asp	Asp	Asp	Gly		
	1075					1080						1085					
Val	Ile	Ser	Leu	Asn	Phe	Glu	Cys	Asp	Lys	Met	Thr	Pro	Lys	Ser	Glu		
	1090				1095						1100						
Phe	Ser	Trp	Ser	Lys	Asp	Tyr	Val	Ser	Thr	Glu	Asp	Ser	Pro	Arg	Leu		
1105				1110					1115					1120			
Glu	Val	Glu	Ser	Lys	Gly	Asn	Lys	Thr	Lys	Met	Thr	Phe	Lys	Asp	Leu		
			1125					1130				1135					
Gly	Met	Asp	Asp	Leu	Gly	Ile	Tyr	Ser	Cys	Asp	Val	Thr	Asp	Thr	Asp		
	1140					1145						1150					
Gly	Ile	Ala	Ser	Ser	Tyr	Leu	Ile	Asp	Glu	Glu	Glu	Leu	Lys	Arg	Leu		
	1155					1160						1165					
Leu	Ala	Leu	Ser	His	Glu	His	Lys	Phe	Pro	Thr	Val	Pro	Val	Lys	Ser		
	1170				1175						1180						
Glu	Leu	Ala	Val	Glu	Ile	Leu	Glu	Lys	Gly	Gln	Val	Arg	Phe	Trp	Met		
1185				1190				1195				1200					
Gln	Ala	Glu	Lys	Leu	Ser	Gly	Asn	Ala	Lys	Val	Asn	Tyr	Ile	Phe	Asn		
			1205					1210				1215					
Glu	Lys	Gly	Ile	Phe	Glu	Gly	Pro	Lys	Tyr	Lys	Met	His	Ile	Asp	Arg		
	1220					1225						1230					
Asn	Thr	Gly	Ile	Ile	Glu	Met	Phe	Met	Glu	Lys	Leu	Gln	Asp	Glu	Asp		
	1235					1240						1245					
Glu	Gly	Thr	Tyr	Thr	Phe	Gln	Leu	Gln	Asp	Gly	Lys	Ala	Thr	Asn	His		
	1250				1255						1260						
Ser	Thr	Val	Val	Leu	Val	Gly	Asp	Val	Phe	Lys	Lys	Leu	Gln	Lys	Glu		
1265				1270				1275				1280					
Ala	Glu	Phe	Gln	Arg	Gln	Glu	Trp	Ile	Arg	Lys	Gln	Gly	Pro	His	Phe		
			1285					1290				1295					
Val	Glu	Tyr	Leu	Ser	Trp	Glu	Val	Thr	Gly	Glu	Cys	Asn	Val	Leu	Leu		
	1300					1305						1310					
Lys	Cys	Lys	Val	Ala	Asn	Ile	Lys	Lys	Glu	Thr	His	Ile	Val	Trp	Tyr		

1315 1320 1325
 Lys Asp Glu Arg Glu Ile Ser Val Asp Glu Lys His Asp Phe Lys Asp
 1330 1335 1340
 Gly Ile Cys Thr Leu Leu Ile Thr Glu Phe Ser Lys Lys Asp Ala Gly
 1345 1350 1355 1360
 Ile Tyr Glu Val Ile Leu Lys Asp Asp Arg Gly Lys Asp Lys Ser Arg
 1365 1370 1375
 Leu Lys Leu Val Asp Glu Ala Phe Lys Glu Leu Met Met Glu Val Cys
 1380 1385 1390
 Lys Lys Ile Ala Leu Ser Ala Thr Asp Leu Lys Ile Gln Ser Thr Ala
 1395 1400 1405
 Glu Gly Ile Gln Leu Tyr Ser Phe Val Thr Tyr Tyr Val Glu Asp Leu
 1410 1415 1420
 Lys Val Asn Trp Ser His Asn Gly Ser Ala Ile Arg Tyr Ser Asp Arg
 1425 1430 1435 1440
 Val Lys Thr Gly Val Thr Gly Glu Gln Ile Trp Leu Gln Ile Asn Glu
 1445 1450 1455
 Pro Thr Pro Asn Asp Lys Gly Lys Tyr Val Met Glu Leu Phe Asp Gly
 1460 1465 1470
 Lys Thr Gly His Gln Lys Thr Val Asp Leu Ser Gly Gln Ala Tyr Asp
 1475 1480 1485
 Glu Ala Tyr Ala Glu Phe Gln Arg Leu Lys Gln Ala Ala Ile Ala Glu
 1490 1495 1500
 Lys Asn Arg Ala Arg Val Leu Gly Gly Leu Pro Asp Val Val Thr Ile
 1505 1510 1515 1520
 Gln Glu Gly Lys Ala Leu Asn Leu Thr Cys Asn Val Trp Gly Asp Pro
 1525 1530 1535
 Pro Pro Glu Val Ser Trp Leu Lys Asn Glu Lys Ala Leu Ala Ser Asp
 1540 1545 1550
 Asp His Cys Asn Leu Lys Phe Glu Ala Gly Arg Thr Ala Tyr Phe Thr
 1555 1560 1565
 Ile Asn Gly Val Ser Thr Ala Asp Ser Gly Lys Tyr Gly Leu Val Val
 1570 1575 1580
 Lys Asn Lys Tyr Gly Ser Glu Thr Ser Asp Phe Thr Val Ser Val Phe
 1585 1590 1595 1600
 Ile Pro Glu Glu Glu Ala Arg Met Ala Ala Leu Glu Ser Leu Lys Gly
 1605 1610 1615
 Gly Lys Lys Ala Lys
 1620 1621

<210> 3458
 <211> 1048
 <212> PRT
 <213> Homo sapiens

<400> 3458
 Leu Ser Arg Ser Ser Ser Asp Asn Asn Thr Asn Thr Leu Gly Arg Asn
 1 5 10 15
 Val Met Ser Thr Ala Thr Ser Pro Leu Met Gly Ala Gln Ser Phe Pro
 20 25 30
 Asn Leu Thr Thr Pro Gly Thr Thr Ser Thr Val Thr Met Ser Thr Ser
 35 40 45
 Ser Val Thr Ser Ser Ser Asn Val Ala Thr Ala Thr Thr Val Leu Ser
 50 55 60
 Val Gly Gln Ser Leu Ser Asn Thr Leu Thr Thr Ser Leu Thr Ser Thr
 65 70 75 80
 Ser Ser Glu Ser Asp Thr Gly Gln Glu Ala Glu Tyr Ser Leu Tyr Asp
 85 90 95
 Phe Leu Asp Ser Cys Arg Ala Ser Thr Leu Leu Ala Glu Leu Asp Asp
 100 105 110
 Asp Glu Asp Leu Pro Glu Pro Asp Glu Glu Asp Asp Glu Asn Glu Asp

115	120	125
Asp Asn Gln Glu Asp Gln Glu Tyr Glu Glu Val Met Ile Leu Arg Arg		
130	135	140
Pro Ser Leu Gln Arg Arg Ala Gly Ser Arg Ser Asp Val Thr His His		
145	150	155
Ala Val Thr Ser Gln Leu Pro Gln Val Pro Ala Gly Ala Gly Ser Arg		160
165	170	175
Pro Ile Gly Glu Gln Glu Glu Glu Tyr Glu Thr Lys Gly Gly Arg		
180	185	190
Arg Arg Thr Trp Asp Asp Asp Tyr Val Leu Lys Arg Gln Phe Ser Ala		
195	200	205
Leu Val Pro Ala Phe Asp Pro Arg Pro Gly Arg Thr Asn Val Gln Gln		
210	215	220
Thr Thr Asp Leu Glu Ile Pro Pro Pro Gly Thr Pro His Ser Glu Leu		
225	230	235
Leu Glu Glu Val Glu Cys Thr Pro Ser Pro Arg Leu Ala Leu Thr Leu		240
245	250	255
Lys Val Thr Gly Leu Gly Thr Thr Arg Glu Val Glu Leu Pro Leu Thr		
260	265	270
Asn Phe Arg Ser Thr Ile Phe Tyr Tyr Val Gln Lys Leu Leu Gln Leu		
275	280	285
Ser Cys Asn Gly Asn Val Lys Ser Asp Lys Leu Arg Arg Ile Trp Glu		
290	295	300
Pro Thr Tyr Thr Ile Met Tyr Arg Glu Met Lys Asp Ser Asp Lys Glu		
305	310	315
Lys Glu Asn Gly Lys Met Gly Cys Trp Ser Ile Glu His Val Glu Gln		320
325	330	335
Tyr Leu Gly Thr Asp Glu Leu Pro Lys Asn Asp Leu Ile Thr Tyr Leu		
340	345	350
Gln Lys Asn Ala Asp Ala Ala Phe Leu Arg His Trp Lys Leu Thr Gly		
355	360	365
Thr Asn Lys Ser Ile Arg Lys Asn Arg Asn Cys Ser Gln Leu Ile Ala		
370	375	380
Ala Tyr Trp Asp Leu Gly Glu His Gly Thr Lys Ser Gly Leu Asn Gln		
385	390	395
Gly Ala Ile Ser Thr Leu Gln Ser Ser Asp Ile Leu Asn Leu Thr Lys		400
405	410	415
Glu Gln Pro Gln Ala Lys Ala Gly Asn Gly Gln Asn Ser Cys Gly Val		
420	425	430
Glu Asp Val Leu Gln Leu Leu Arg Ile Leu Tyr Ile Val Ala Ser Asp		
435	440	445
Pro Tyr Ser Arg Ile Ser Gln Glu Asp Gly Asp Glu Gln Pro Gln Phe		
450	455	460
Thr Phe Pro Pro Asp Glu Phe Thr Ser Lys Lys Ile Thr Thr Lys Ile		
465	470	475
Leu Gln Gln Ile Glu Glu Pro Leu Ala Leu Ala Ser Gly Ala Leu Pro		480
485	490	495
Asp Trp Cys Glu Gln Leu Thr Ser Lys Cys Pro Phe Leu Ile Pro Phe		
500	505	510
Glu Thr Arg Gln Leu Tyr Phe Thr Cys Thr Ala Phe Gly Ala Ser Arg		
515	520	525
Ala Ile Val Trp Leu Gln Asn Arg Arg Glu Ala Thr Val Glu Arg Thr		
530	535	540
Arg Thr Thr Ser Ser Val Arg Arg Asp Asp Pro Gly Glu Phe Arg Val		
545	550	555
Gly Arg Leu Lys His Glu Arg Val Lys Val Pro Arg Gly Glu Ser Leu		
565	570	575
Met Glu Trp Ala Glu Asn Val Met Gln Ile His Ala Asp Arg Lys Ser		
580	585	590
Val Leu Glu Val Glu Phe Leu Gly Glu Glu Gly Thr Gly Leu Gly Pro		
595	600	605
Thr Leu Glu Phe Tyr Ala Leu Val Ala Ala Glu Phe Gln Arg Thr Asp		
610	615	620
Leu Gly Ala Trp Leu Cys Asp Asp Asn Phe Pro Asp Asp Glu Ser Arg		

625					630					635				640	
His	Val	Asp	Leu	Gly	Gly	Gly	Leu	Lys	Pro	Pro	Gly	Tyr	Tyr	Val	Gln
				645					650					655	
Arg	Ser	Cys	Gly	Leu	Phe	Thr	Ala	Pro	Phe	Pro	Gln	Asp	Ser	Asp	Glu
			660					665					670		
Leu	Glu	Arg	Ile	Thr	Lys	Leu	Phe	His	Phe	Leu	Gly	Ile	Phe	Leu	Ala
		675					680					685			
Lys	Cys	Ile	Gln	Asp	Asn	Arg	Leu	Val	Asp	Leu	Pro	Ile	Ser	Lys	Pro
	690				695						700				
Phe	Phe	Lys	Leu	Met	Cys	Met	Gly	Asp	Ile	Lys	Ser	Asn	Met	Ser	Lys
705					710					715					720
Leu	Ile	Tyr	Glu	Ser	Arg	Gly	Asp	Arg	Asp	Leu	His	Cys	Thr	Glu	Ser
				725					730					735	
Gln	Ser	Glu	Ala	Ser	Thr	Glu	Glu	Gly	His	Asp	Ser	Leu	Ser	Val	Gly
			740					745					750		
Ser	Phe	Glu	Glu	Asp	Ser	Lys	Ser	Glu	Phe	Ile	Leu	Asp	Pro	Pro	Lys
		755					760					765			
Pro	Lys	Pro	Pro	Ala	Trp	Phe	Asn	Gly	Ile	Leu	Thr	Trp	Glu	Asp	Phe
	770					775					780				
Glu	Leu	Val	Asn	Pro	His	Arg	Ala	Arg	Phe	Leu	Lys	Glu	Ile	Lys	Asp
785					790					795					800
Leu	Ala	Ile	Lys	Arg	Arg	Gln	Ile	Leu	Ser	Asn	Lys	Gly	Leu	Ser	Glu
				805					810					815	
Asp	Glu	Lys	Asn	Thr	Lys	Leu	Gln	Glu	Leu	Val	Leu	Lys	Asn	Pro	Ser
			820					825					830		
Gly	Ser	Gly	Pro	Pro	Leu	Ser	Ile	Glu	Asp	Leu	Gly	Leu	Asn	Phe	Gln
		835					840					845			
Phe	Cys	Pro	Ser	Ser	Arg	Ile	Tyr	Gly	Phe	Thr	Ala	Val	Asp	Leu	Lys
	850					855					860				
Pro	Ser	Gly	Glu	Asp	Glu	Met	Ile	Thr	Met	Asp	Asn	Ala	Glu	Glu	Tyr
865					870					875					880
Val	Asp	Leu	Met	Phe	Asp	Phe	Cys	Met	His	Thr	Gly	Ile	Gln	Lys	Gln
				885					890					895	
Met	Glu	Ala	Phe	Arg	Asp	Gly	Phe	Asn	Lys	Val	Phe	Pro	Met	Glu	Lys
		900						905					910		
Leu	Ser	Ser	Phe	Ser	His	Glu	Glu	Val	Gln	Met	Ile	Leu	Cys	Gly	Asn
		915					920					925			
Gln	Ser	Pro	Ser	Trp	Ala	Ala	Glu	Asp	Ile	Ile	Asn	Tyr	Thr	Glu	Pro
	930					935					940				
Lys	Leu	Gly	Tyr	Thr	Arg	Asp	Ser	Pro	Gly	Phe	Leu	Arg	Phe	Val	Arg
945					950					955					960
Val	Leu	Cys	Gly	Met	Ser	Ser	Asp	Glu	Arg	Lys	Ala	Phe	Leu	Gln	Phe
			965						970					975	
Thr	Thr	Gly	Cys	Ser	Thr	Leu	Pro	Pro	Gly	Gly	Leu	Ala	Asn	Leu	His
			980					985					990		
Pro	Arg	Leu	Thr	Val	Val	Arg	Lys	Val	Asp	Ala	Thr	Asp	Ala	Ser	Tyr
	995						1000					1005			
Pro	Ser	Val	Asn	Thr	Cys	Val	His	Tyr	Leu	Lys	Leu	Pro	Glu	Tyr	Ser
	1010					1015					1020				
Ser	Glu	Glu	Ile	Met	Arg	Glu	Arg	Leu	Leu	Ala	Ala	Thr	Met	Glu	Lys
1025					1030					1035					1040
Gly	Phe	His	Leu	Asn											
				1045											

<210> 3459

<211> 172

<212> PRT

<213> Homo sapiens

<400> 3459

Ser Cys Gly Pro Arg Gly Leu Ala Ser Leu Gly Leu Gly Phe Ser Gly

1	5	10	15
Arg Cys Asp Asp Gln Asn Lys Gly Arg Ser Asp Gly Pro Glu Ala Gln			
20	25	30	
Ala Glu Ala Cys Ser Gly Glu Arg Thr Tyr Gln Glu Leu Leu Val Asn			
35	40	45	
Gln Asn Pro Ile Ala Gln Pro Leu Ala Ser Arg Arg Leu Thr Arg Lys			
50	55	60	
Leu Tyr Lys Cys Ile Lys Lys Ala Val Lys Gln Lys Gln Ile Arg Arg			
65	70	75	80
Gly Val Lys Glu Val Gln Lys Phe Val Asn Lys Gly Glu Lys Gly Ile			
85	90	95	
Met Val Leu Ala Gly Asp Thr Leu Pro Ile Glu Val Tyr Cys His Leu			
100	105	110	
Pro Val Met Cys Glu Asp Arg Asn Leu Pro Tyr Val Tyr Ile Pro Ser			
115	120	125	
Lys Thr Asp Leu Gly Ala Ala Ala Gly Ser Lys Arg Pro Thr Cys Val			
130	135	140	
Ile Met Val Lys Pro His Glu Glu Tyr Gln Glu Ala Tyr Asp Glu Cys			
145	150	155	160
Leu Glu Glu Val Gln Ser Leu Pro Leu Pro Leu			
165	170	171	

<210> 3460

<211> 623

<212> PRT

<213> Homo sapiens

<400> 3460

Gln Val Thr Asn Met Ser Asp Lys Ser Glu Leu Lys Ala Glu Leu Glu			
1	5	10	15
Arg Lys Lys Gln Arg Leu Ala Gln Ile Arg Glu Glu Lys Lys Arg Lys			
20	25	30	
Glu Glu Glu Arg Lys Lys Lys Glu Thr Asp Gln Lys Lys Glu Ala Val			
35	40	45	
Ala Pro Val Gln Glu Glu Ser Asp Leu Glu Lys Lys Arg Arg Glu Ala			
50	55	60	
Glu Ala Leu Leu Gln Ser Met Gly Leu Thr Pro Glu Ser Pro Ile Val			
65	70	75	80
Pro Pro Pro Met Ser Pro Ser Ser Lys Ser Val Ser Thr Pro Ser Glu			
85	90	95	
Ala Gly Ser Gln Asp Ser Gly Asp Gly Ala Val Gly Ser Arg Arg Gly			
100	105	110	
Pro Ile Lys Leu Gly Met Ala Lys Ile Thr Gln Val Asp Phe Pro Pro			
115	120	125	
Arg Glu Ile Val Thr Tyr Thr Lys Glu Thr Gln Thr Pro Val Met Ala			
130	135	140	
Gln Pro Lys Glu Asp Glu Glu Glu Asp Asp Val Val Ala Pro Lys			
145	150	155	160
Pro Pro Ile Glu Pro Glu Glu Glu Lys Thr Leu Lys Lys Asp Glu Glu			
165	170	175	
Asn Asp Ser Lys Ala Pro Pro His Glu Leu Thr Glu Glu Glu Lys Gln			
180	185	190	
Gln Ile Leu His Ser Glu Glu Phe Leu Ser Phe Phe Asp His Ser Thr			
195	200	205	
Arg Ile Val Glu Arg Ala Leu Ser Glu Gln Ile Asn Ile Phe Phe Asp			
210	215	220	
Tyr Ser Gly Arg Asp Phe Glu Asn Asp Lys Glu Gly Glu Ile Gln Ala			
225	230	235	240
Gly Ala Lys Leu Ser Leu Asn Arg Gln Phe Phe Asp Glu Arg Trp Ser			
245	250	255	
Lys Ala Ser Gly Trp Val Ser Cys Leu Asp Trp Ser Ser Gln Tyr Pro			

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<210> 3461
<211> 623
<212> PRT
<213> Homo sapiens
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<400> 3461															
Gln	Val	Thr	Asn	Met	Ser	Asp	Lys	Ser	Glu	Leu	Lys	Ala	Glu	Leu	Glu
1				5					10					15	
Arg	Lys	Lys	Gln	Arg	Leu	Ala	Gln	Ile	Arg	Glu	Glu	Lys	Lys	Arg	Lys
			20					25						30	
Glu	Glu	Glu	Arg	Lys	Lys	Lys	Glu	Thr	Asp	Gln	Lys	Lys	Glu	Ala	Val
		35					40					45			
Ala	Pro	Val	Gln	Glu	Glu	Ser	Asp	Leu	Glu	Lys	Lys	Arg	Arg	Glu	Ala
	50					55					60				
Glu	Ala	Leu	Leu	Gln	Ser	Met	Gly	Leu	Thr	Pro	Glu	Ser	Pro	Ile	Val

65					70					75				80	
Pro	Pro	Pro	Met	Ser	Pro	Ser	Ser	Lys	Ser	Val	Ser	Thr	Pro	Ser	Glu
				85					90					95	
Ala	Gly	Ser	Gln	Asp	Ser	Gly	Asp	Gly	Ala	Val	Gly	Ser	Arg	Arg	Gly
			100					105					110		
Pro	Ile	Lys	Leu	Gly	Met	Ala	Lys	Ile	Thr	Gln	Val	Asp	Phe	Pro	Pro
		115					120					125			
Arg	Glu	Ile	Val	Thr	Tyr	Thr	Lys	Glu	Thr	Gln	Thr	Pro	Val	Met	Ala
	130					135					140				
Gln	Pro	Lys	Glu	Asp	Glu	Glu	Glu	Asp	Asp	Asp	Val	Val	Ala	Pro	Lys
145					150					155					160
Pro	Pro	Ile	Glu	Pro	Glu	Glu	Glu	Lys	Thr	Leu	Lys	Lys	Asp	Glu	Glu
			165					170						175	
Asn	Asp	Ser	Lys	Ala	Pro	Pro	His	Glu	Leu	Thr	Glu	Glu	Glu	Lys	Gln
			180					185					190		
Gln	Ile	Leu	His	Ser	Glu	Glu	Phe	Leu	Ser	Phe	Phe	Asp	His	Ser	Thr
	195						200					205			
Arg	Ile	Val	Glu	Arg	Ala	Leu	Ser	Glu	Gln	Ile	Asn	Ile	Phe	Phe	Asp
	210					215					220				
Tyr	Ser	Gly	Arg	Asp	Phe	Glu	Asn	Asp	Lys	Glu	Gly	Glu	Ile	Gln	Ala
225					230					235					240
Gly	Ala	Lys	Leu	Ser	Leu	Asn	Arg	Gln	Phe	Phe	Asp	Glu	Arg	Trp	Ser
			245					250						255	
Lys	Ala	Ser	Gly	Trp	Val	Ser	Cys	Leu	Asp	Trp	Ser	Ser	Gln	Tyr	Pro
			260					265					270		
Glu	Leu	Leu	Val	Ala	Ser	Tyr	Asn	Asn	Asn	Glu	Asp	Ala	Pro	His	Glu
	275						280					285			
Pro	Asp	Gly	Val	Ala	Leu	Val	Trp	Asn	Met	Lys	Tyr	Lys	Lys	Thr	Thr
	290					295					300				
Pro	Glu	Tyr	Val	Phe	His	Cys	Gln	Ser	Ala	Val	Met	Ser	Ala	Thr	Phe
305					310					315					320
Ala	Lys	Phe	His	Pro	Asn	Leu	Val	Val	Gly	Gly	Thr	Tyr	Ser	Gly	Gln
			325					330						335	
Ile	Val	Leu	Trp	Asp	Asn	Arg	Ser	Asn	Lys	Arg	Thr	Pro	Val	Gln	Arg
		340						345					350		
Thr	Pro	Leu	Ser	Ala	Ala	Ala	His	Thr	His	Pro	Val	Tyr	Cys	Val	Asn
	355						360					365			
Val	Val	Gly	Thr	Gln	Asn	Ala	His	Asn	Leu	Ile	Ser	Ile	Ser	Thr	Asp
	370				375					380					
Gly	Lys	Ile	Cys	Ser	Trp	Ser	Leu	Asp	Met	Leu	Ser	His	Pro	Gln	Asp
385					390					395					400
Ser	Met	Glu	Leu	Val	His	Lys	Gln	Ser	Lys	Ala	Val	Ala	Val	Thr	Ser
			405					410						415	
Met	Ser	Phe	Pro	Val	Gly	Asp	Val	Asn	Asn	Phe	Val	Val	Gly	Ser	Glu
			420					425					430		
Glu	Gly	Ser	Val	Tyr	Thr	Ala	Cys	Arg	His	Gly	Ser	Lys	Ala	Gly	Ile
	435					440						445			
Ser	Glu	Met	Phe	Glu	Gly	His	Gln	Gly	Pro	Ile	Thr	Gly	Ile	His	Cys
	450					455					460				
His	Ala	Ala	Val	Gly	Ala	Val	Asp	Phe	Ser	His	Leu	Tyr	Val	Thr	Ser
465					470					475					480
Ser	Phe	Asp	Trp	Thr	Val	Lys	Leu	Trp	Thr	Thr	Lys	Asn	Asn	Lys	Pro
			485					490						495	
Leu	Tyr	Ser	Phe	Glu	Asp	Asn	Ala	Gly	Tyr	Val	Tyr	Asp	Val	Met	Trp
		500						505					510		
Ser	Pro	Thr	His	Pro	Ala	Leu	Phe	Ala	Cys	Val	Asp	Gly	Met	Gly	Arg
	515						520					525			
Leu	Asp	Leu	Trp	Asn	Leu	Asn	Asn	Asp	Thr	Glu	Val	Pro	Thr	Ala	Ser
	530				535						540				
Ile	Ser	Val	Glu	Gly	Asn	Pro	Ala	Leu	Asn	Arg	Val	Arg	Trp	Thr	His
545					550					555					560
Ser	Gly	Arg	Glu	Ile	Ala	Val	Gly	Asp	Ser	Glu	Gly	Gln	Ile	Val	Ile
			565					570						575	
Tyr	Asp	Val	Gly	Glu	Gln	Ile	Ala	Val	Pro	Arg	Asn	Asp	Glu	Trp	Ala

	580		585		590
Arg	Phe Gly Arg Thr Leu Ala Glu Ile Asn Ala Asn Arg Ala Asp Ala				
	595		600		605
Glu	Glu Glu Ala Ala Thr Arg Ile Pro Ala				
	610		615		618

<210> 3462

<211> 880

<212> PRT

<213> Homo sapiens

<400> 3462

Thr	Ala	Pro	Glu	Phe	Ser	Arg	Ser	Thr	His	Ala	Ser	Ala	His	Ala	Ser
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Val	Ala	Arg	Val	Leu	Arg	Asn	Arg	Glu	Ile	Ala	Gln	Leu	Lys	Lys	Glu
			20					25					30		
Gln	Arg	Arg	Gln	Glu	Phe	Gln	Ile	Arg	Ala	Leu	Glu	Ser	Gln	Lys	Arg
			35				40					45			
Gln	Gln	Glu	Met	Val	Leu	Arg	Arg	Lys	Thr	Gln	Glu	Val	Ser	Ala	Leu
			50			55					60				
Arg	Arg	Leu	Ala	Lys	Pro	Met	Ser	Glu	Arg	Val	Ala	Gly	Arg	Ala	Gly
					70					75					80
Leu	Lys	Pro	Pro	Met	Leu	Asp	Ser	Gly	Ala	Glu	Val	Ser	Ala	Ser	Thr
				85					90					95	
Thr	Ser	Ser	Glu	Ala	Glu	Ser	Gly	Ala	Arg	Ser	Val	Ser	Ser	Ile	Val
			100					105						110	
Arg	Gln	Trp	Asn	Arg	Lys	Ile	Asn	His	Phe	Leu	Gly	Asp	His	Pro	Ala
			115				120					125			
Pro	Thr	Val	Asn	Gly	Thr	Arg	Pro	Ala	Arg	Lys	Lys	Phe	Gln	Lys	Lys
						135						140			
Gly	Ala	Ser	Gln	Ser	Phe	Ser	Lys	Ala	Ala	Arg	Leu	Lys	Trp	Gln	Ser
					150					155					160
Leu	Glu	Arg	Arg	Ile	Ile	Asp	Ile	Val	Met	Gln	Arg	Met	Thr	Ile	Val
				165				170						175	
Asn	Leu	Glu	Ala	Asp	Met	Glu	Arg	Leu	Ile	Lys	Lys	Arg	Glu	Glu	Leu
			180					185						190	
Phe	Leu	Leu	Gln	Glu	Ala	Leu	Arg	Arg	Lys	Arg	Glu	Arg	Leu	Gln	Ala
			195				200					205			
Glu	Ser	Pro	Glu	Glu	Glu	Lys	Gly	Leu	Gln	Glu	Leu	Ala	Glu	Glu	Ile
			210			215					220				
Glu	Val	Leu	Ala	Ala	Asn	Ile	Asp	Tyr	Ile	Asn	Asp	Gly	Ile	Thr	Asp
					230					235					240
Cys	Gln	Ala	Thr	Ile	Val	Gln	Leu	Glu	Glu	Thr	Lys	Glu	Glu	Leu	Asp
				245				250						255	
Ser	Thr	Asp	Thr	Ser	Val	Val	Ile	Ser	Ser	Cys	Ser	Leu	Ala	Glu	Ala
			260					265					270		
Arg	Leu	Leu	Leu	Asp	Asn	Phe	Leu	Lys	Ala	Ser	Ile	Asp	Lys	Gly	Leu
			275				280					285			
Gln	Val	Ala	Gln	Lys	Glu	Ala	Gln	Ile	Arg	Leu	Leu	Glu	Gly	Arg	Leu
			290			295					300				
Arg	Gln	Thr	Asp	Met	Ala	Gly	Ser	Ser	Gln	Asn	His	Leu	Leu	Leu	Asp
					310				315						320
Ala	Leu	Arg	Glu	Lys	Ala	Glu	Ala	His	Pro	Glu	Leu	Gln	Ala	Leu	Ile
				325				330						335	
Tyr	Asn	Val	Gln	Gln	Glu	Asn	Gly	Tyr	Ala	Ser	Thr	Asp	Glu	Glu	Ile
			340				345					350			
Ser	Glu	Phe	Ser	Glu	Gly	Ser	Phe	Ser	Gln	Ser	Phe	Thr	Met	Lys	Gly
			355			360					365				
Ser	Thr	Ser	His	Asp	Asp	Phe	Lys	Phe	Lys	Ser	Glu	Pro	Lys	Leu	Ser
			370			375					380				
Ala	Gln	Met	Lys	Ala	Val	Ser	Ala	Glu	Cys	Leu	Gly	Pro	Pro	Leu	Asp

385					390					395				400
Ile	Ser	Thr	Lys	Asn	Ile	Thr	Lys	Ser	Leu	Ala	Ser	Leu	Val	Glu Ile
				405					410					415
Lys	Glu	Asp	Gly	Val	Gly	Phe	Ser	Val	Arg	Asp	Pro	Tyr	Tyr	Arg Asp
			420					425					430	
Arg	Val	Ser	Arg	Thr	Val	Ser	Leu	Pro	Thr	Arg	Gly	Ser	Thr	Phe Pro
		435					440					445		
Arg	Gln	Ser	Arg	Ala	Thr	Glu	Thr	Ser	Pro	Leu	Thr	Arg	Arg	Lys Ser
	450					455					460			
Tyr	Asp	Arg	Gly	Gln	Pro	Ile	Arg	Ser	Thr	Asp	Val	Gly	Phe	Thr Pro
465					470					475				480
Pro	Ser	Ser	Pro	Pro	Thr	Arg	Pro	Arg	Asn	Asp	Arg	Asn	Val	Phe Ser
				485					490					495
Arg	Leu	Thr	Ser	Asn	Gln	Ser	Gln	Gly	Ser	Ala	Leu	Asp	Lys	Ser Asp
			500					505					510	
Asp	Ser	Asp	Ser	Ser	Leu	Ser	Glu	Val	Leu	Arg	Gly	Ile	Ile	Ser Pro
		515					520					525		
Val	Gly	Gly	Ala	Lys	Gly	Ala	Arg	Thr	Ala	Pro	Leu	Gln	Cys	Val Ser
	530					535					540			
Met	Ala	Glu	Gly	His	Thr	Lys	Pro	Ile	Leu	Cys	Leu	Asp	Ala	Thr Asp
545					550					555				560
Glu	Leu	Leu	Phe	Thr	Gly	Ser	Lys	Asp	Arg	Ser	Cys	Lys	Met	Trp Asn
			565					570						575
Leu	Val	Thr	Gly	Gln	Glu	Ile	Ala	Ala	Leu	Lys	Gly	His	Pro	Asn Asn
			580					585					590	
Val	Val	Ser	Ile	Lys	Tyr	Cys	Ser	His	Ser	Gly	Leu	Val	Phe	Ser Val
		595					600					605		
Ser	Thr	Ser	Tyr	Ile	Lys	Val	Trp	Asp	Ile	Arg	Asp	Ser	Ala	Lys Cys
	610					615					620			
Ile	Arg	Thr	Leu	Thr	Ser	Ser	Gly	Gln	Val	Ile	Ser	Gly	Asp	Ala Cys
625					630					635				640
Ala	Ala	Thr	Ser	Thr	Arg	Ala	Ile	Thr	Ser	Ala	Gln	Gly	Glu	His Gln
				645					650					655
Ile	Asn	Gln	Ile	Ala	Leu	Ser	Pro	Ser	Gly	Thr	Met	Leu	Tyr	Ala Ala
			660					665					670	
Ser	Gly	Asn	Ala	Val	Arg	Ile	Trp	Glu	Leu	Ser	Arg	Phe	Gln	Pro Val
		675					680					685		
Gly	Lys	Leu	Thr	Gly	His	Ile	Gly	Pro	Val	Met	Cys	Leu	Thr	Val Thr
	690					695					700			
Gln	Thr	Ala	Ser	Gln	His	Asp	Leu	Val	Val	Thr	Gly	Ser	Lys	Asp His
705					710					715				720
Tyr	Val	Lys	Met	Phe	Glu	Leu	Gly	Glu	Cys	Val	Thr	Gly	Thr	Ile Gly
			725					730						735
Pro	Thr	His	Asn	Phe	Glu	Pro	Pro	His	Tyr	Asp	Gly	Ile	Glu	Cys Leu
			740					745					750	
Ala	Ile	Gln	Gly	Asp	Ile	Leu	Phe	Ser	Gly	Ser	Arg	Asp	Asn	Gly Ile
		755					760					765		
Lys	Lys	Trp	Asp	Leu	Asp	Gln	Gln	Glu	Leu	Ile	Gln	Gln	Ile	Pro Asn
	770					775					780			
Ala	His	Lys	Asp	Trp	Val	Cys	Ala	Leu	Ala	Phe	Ile	Pro	Gly	Arg Pro
785					790					795				800
Met	Leu	Leu	Ser	Ala	Cys	Arg	Ala	Gly	Val	Ile	Lys	Val	Trp	Asn Val
			805					810						815
Asp	Asn	Phe	Thr	Pro	Ile	Gly	Glu	Ile	Lys	Gly	His	Asp	Ser	Pro Ile
			820					825					830	
Asn	Ala	Ile	Cys	Thr	Asn	Ala	Lys	His	Ile	Phe	Thr	Ala	Ser	Ser Gly
		835					840					845		
Cys	Arg	Val	Lys	Val	Trp	Asn	Tyr	Val	Pro	Gly	Leu	Thr	Pro	Cys Leu
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Pro	Arg	Arg	Val	Leu	Ala	Ile	Lys	Gly	Arg	Ala	Thr	Thr	Leu	Pro
865					870					875				879

<210> 3463
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 <213> Homo sapiens

<400> 3463

Ser	Gly	Glu	Pro	Arg	Pro	Glu	Pro	Gly	Asn	Met	Ala	Thr	Cys	Ile	Gly
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Glu	Lys	Ile	Glu	Asp	Phe	Lys	Val	Gly	Asn	Leu	Leu	Gly	Lys	Gly	Ser
			20					25					30		
Phe	Ala	Gly	Val	Tyr	Arg	Ala	Glu	Ser	Ile	His	Thr	Gly	Leu	Glu	Val
		35					40					45			
Ala	Ile	Lys	Met	Ile	Asp	Lys	Lys	Ala	Met	Tyr	Lys	Ala	Gly	Met	Val
	50					55				60					
Gln	Arg	Val	Gln	Asn	Glu	Val	Lys	Ile	His	Cys	Gln	Leu	Lys	His	Pro
65				70					75					80	
Ser	Ile	Leu	Glu	Leu	Tyr	Asn	Tyr	Phe	Glu	Asp	Ser	Asn	Tyr	Val	Tyr
				85					90					95	
Leu	Val	Leu	Glu	Met	Cys	His	Asn	Gly	Glu	Met	Asn	Arg	Tyr	Leu	Lys
			100					105					110		
Asn	Arg	Val	Lys	Pro	Phe	Ser	Glu	Asn	Glu	Ala	Arg	His	Phe	Met	His
		115					120					125			
Gln	Ile	Ile	Thr	Gly	Met	Leu	Tyr	Leu	His	Ser	His	Gly	Ile	Leu	His
	130					135						140			
Arg	Asp	Leu	Thr	Leu	Ser	Asn	Leu	Leu	Leu	Thr	Arg	Asn	Met	Asn	Ile
145					150					155					160
Lys	Ile	Ala	Asp	Phe	Gly	Leu	Ala	Thr	Gln	Leu	Lys	Met	Pro	His	Glu
			165					170					175		
Lys	His	Tyr	Thr	Leu	Cys	Gly	Thr	Pro	Asn	Tyr	Ile	Ser	Pro	Glu	Ile
			180					185					190		
Ala	Thr	Arg	Ser	Ala	His	Gly	Leu	Glu	Ser	Asp	Val	Trp	Ser	Leu	Gly
		195					200					205			
Cys	Met	Phe	Tyr	Thr	Leu	Leu	Ile	Gly	Arg	Pro	Pro	Phe	Asp	Thr	Asp
	210					215				220					
Thr	Val	Lys	Asn	Thr	Leu	Asn	Lys	Val	Val	Leu	Ala	Asp	Tyr	Glu	Met
225					230					235				240	
Pro	Thr	Phe	Leu	Ser	Ile	Glu	Ala	Lys	Asp	Leu	Ile	His	Gln	Leu	Leu
				245					250					255	
Arg	Arg	Asn	Pro	Ala	Asp	Arg	Leu	Ser	Leu	Ser	Ser	Val	Leu	Asp	His
		260					265						270		
Pro	Phe	Met	Ser	Arg	Asn	Ser	Ser	Thr	Lys	Ser	Lys	Asp	Leu	Gly	Thr
		275				280						285			
Val	Glu	Asp	Ser	Ile	Asp	Ser	Gly	His	Ala	Thr	Ile	Ser	Thr	Ala	Ile
	290					295					300				
Thr	Ala	Ser	Ser	Ser	Thr	Ser	Ile	Ser	Gly	Ser	Leu	Phe	Asp	Lys	Arg
305					310					315				320	
Arg	Leu	Leu	Ile	Gly	Gln	Pro	Leu	Pro	Asn	Lys	Met	Thr	Val	Phe	Pro
				325					330					335	
Lys	Asn	Lys	Ser	Ser	Thr	Asp	Phe	Ser	Ser	Ser	Gly	Asp	Gly	Asn	Ser
		340					345					350			
Phe	Tyr	Thr	Gln	Trp	Gly	Asn	Gln	Glu	Thr	Ser	Asn	Ser	Gly	Arg	Gly
		355				360						365			
Arg	Val	Ile	Gln	Asp	Ala	Glu	Glu	Arg	Pro	His	Ser	Arg	Tyr	Leu	Arg
	370					375					380				
Arg	Ala	Tyr	Ser	Ser	Asp	Arg	Ser	Gly	Thr	Ser	Asn	Ser	Gln	Ser	Gln
385					390					395				400	
Ala	Lys	Thr	Tyr	Thr	Met	Glu	Arg	Cys	His	Ser	Ala	Glu	Met	Leu	Ser
				405					410					415	
Val	Ser	Lys	Arg	Ser	Gly	Gly	Gly	Glu	Asn	Glu	Glu	Arg	Tyr	Ser	Pro
		420						425					430		
Thr	Asp	Asn	Asn	Ala	Asn	Ile	Phe	Asn	Phe	Phe	Lys	Glu	Lys	Thr	Ser
	435					440						445			
Ser	Ser	Ser	Gly	Ser	Phe	Glu	Arg	Pro	Asp	Asn	Asn	Gln	Ala	Leu	Ser

450	Asn	His	Leu	Cys	Pro	Gly	Lys	Thr	Pro	Phe	Pro	Phe	Ala	Asp	Pro	Thr
465	Pro	Gln	Thr	Glu	Thr	Val	Gln	Gln	Trp	Phe	Gly	Asn	Leu	Gln	Ile	Asn
					485					490						495
	Ala	His	Leu	Arg	Lys	Thr	Thr	Glu	Tyr	Asp	Ser	Ile	Ser	Pro	Asn	Arg
				500					505					510		
	Asp	Phe	Gln	Gly	His	Pro	Asp	Leu	Gln	Lys	Asp	Thr	Ser	Lys	Asn	Ala
			515				520						525			
	Trp	Thr	Asp	Thr	Lys	Val	Lys	Lys	Asn	Ser	Asp	Ala	Ser	Asp	Asn	Ala
			530				535					540				
	His	Ser	Val	Lys	Gln	Gln	Asn	Thr	Met	Lys	Tyr	Met	Thr	Ala	Leu	His
545					550						555					560
	Ser	Lys	Pro	Glu	Ile	Ile	Gln	Gln	Glu	Cys	Val	Phe	Gly	Ser	Asp	Pro
				565					570							575
	Leu	Ser	Glu	Gln	Ser	Lys	Thr	Arg	Gly	Met	Glu	Pro	Pro	Trp	Gly	Tyr
				580					585					590		
	Gln	Asn	Arg	Thr	Leu	Arg	Ser	Ile	Thr	Ser	Pro	Leu	Val	Ala	His	Arg
			595					600					605			
	Leu	Lys	Pro	Ile	Arg	Gln	Lys	Thr	Lys	Lys	Ala	Val	Val	Ser	Ile	Leu
			610				615					620				
	Asp	Ser	Glu	Glu	Val	Cys	Val	Glu	Leu	Val	Lys	Glu	Tyr	Ala	Ser	Gln
625					630						635					640
	Glu	Tyr	Val	Lys	Glu	Val	Leu	Gln	Ile	Ser	Ser	Asp	Gly	Asn	Thr	Ile
				645					650							655
	Thr	Ile	Tyr	Tyr	Pro	Asn	Gly	Gly	Arg	Gly	Phe	Pro	Leu	Ala	Asp	Arg
				660				665					670			
	Pro	Pro	Ser	Pro	Thr	Asp	Asn	Ile	Ser	Arg	Tyr	Ser	Phe	Asp	Asn	Leu
			675				680						685			
	Pro	Glu	Lys	Tyr	Trp	Arg	Lys	Tyr	Gln	Tyr	Ala	Ser	Arg	Phe	Val	Gln
			690				695					700				
	Leu	Val	Arg	Ser	Lys	Ser	Pro	Lys	Ile	Thr	Tyr	Phe	Thr	Arg	Tyr	Ala
705					710						715					720
	Lys	Cys	Ile	Leu	Met	Glu	Asn	Ser	Pro	Gly	Ala	Asp	Phe	Glu	Val	Trp
				725					730							735
	Phe	Tyr	Asp	Gly	Val	Lys	Ile	His	Lys	Thr	Glu	Asp	Phe	Ile	Gln	Val
			740					745						750		
	Ile	Glu	Lys	Thr	Gly	Lys	Ser	Tyr	Thr	Leu	Lys	Ser	Glu	Ser	Glu	Val
			755				760						765			
	Asn	Ser	Leu	Lys	Glu	Glu	Ile	Lys	Met	Tyr	Met	Asp	His	Ala	Asn	Glu
770							775					780				
	Gly	His	Arg	Ile	Cys	Leu	Ala	Leu	Glu	Ser	Ile	Ile	Ser	Glu	Glu	Glu
785					790						795					800
	Arg	Lys	Thr	Arg	Ser	Ala	Pro	Phe	Phe	Pro	Ile	Ile	Ile	Gly	Arg	Lys
				805					810							815
	Pro	Gly	Ser	Thr	Ser	Ser	Pro	Lys	Ala	Leu	Ser	Pro	Pro	Pro	Ser	Val
			820					825						830		
	Asp	Ser	Asn	Tyr	Pro	Thr	Arg	Asp	Arg	Ala	Ser	Phe	Asn	Arg	Met	Val
			835				840						845			
	Met	His	Ser	Ala	Ala	Ser	Pro	Thr	Gln	Ala	Pro	Ile	Leu	Asn	Pro	Ser
			850				855					860				
	Met	Val	Thr	Asn	Glu	Gly	Leu	Gly	Leu	Thr	Thr	Thr	Ala	Ser	Gly	Thr
865					870						875					880
	Asp	Ile	Ser	Ser	Asn	Ser	Leu	Lys	Asp	Cys	Leu	Pro	Lys	Ser	Ala	Gln
				885					890							895
	Leu	Leu	Lys	Ser	Val	Phe	Val	Lys	Asn	Val	Gly	Trp	Ala	Thr	Gln	Leu
			900					905						910		
	Thr	Ser	Gly	Ala	Val	Trp	Val	Gln	Phe	Asn	Asp	Gly	Ser	Gln	Leu	Val
			915				920						925			
	Val	Gln	Ala	Gly	Val	Ser	Ser	Ile	Ser	Tyr	Thr	Ser	Pro	Asn	Gly	Gln
			930				935					940				
	Thr	Thr	Arg	Tyr	Gly	Glu	Asn	Glu	Lys	Leu	Pro	Asp	Tyr	Ile	Lys	Gln
945					950						955					960
	Lys	Leu	Gln	Cys	Leu	Ser	Ser	Ile	Leu	Leu	Met	Phe	Ser	Asn	Pro	Thr

Pro Asn Phe His
980

965

970

975

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<211> 111
<212> PRT
<213> Homo sapiens

<400> 3464
Ala Val Arg Thr Val Ser Gly Thr Ser Leu Gly Pro Arg Ser His Ser
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Arg Ser Pro Gly Arg Cys His Cys Phe Ser Ala Val Thr Phe Ser Ser
20 25 30
Pro Arg Leu Ala Ala Ser Glu Ala Pro Asp Pro Met Glu Glu Trp Asp
35 40 45
Val Pro Gln Met Lys Lys Glu Val Glu Ser Leu Lys Tyr Gln Leu Ala
50 55 60
Phe Gln Arg Glu Met Ala Ser Lys Thr Ile Pro Glu Leu Leu Lys Trp
65 70 75 80
Ile Glu Asp Gly Ile Pro Lys Asp Pro Phe Leu Asn Pro Asp Leu Met
85 90 95
Lys Asn Asn Pro Trp Val Glu Lys Gly Lys Cys Thr Ile Leu
100 105 110

<210> 3465
<211> 1713
<212> PRT
<213> Homo sapiens

<400> 3465
Val Arg Lys Leu Asp Arg Glu Arg Val Gly Ala Trp Trp Arg Gly Ala
1 5 10 15
Trp Ala Arg His Pro Arg Gln Glu Ala Gly Glu His Ala Lys Arg Arg
20 25 30
Lys Gly His Ala Glu Thr Pro Arg Gly Arg Arg Lys Gly Arg Ala Gly
35 40 45
Arg Ser Ala Ala Ala Val Gly Glu Leu Arg Pro Ala Arg Arg Ser Leu
50 55 60
Glu Thr Ser Arg Ala Ala Ala Met Ala Lys Asp Ser Pro Ser Pro
65 70 75 80
Leu Gly Ala Ser Pro Lys Lys Pro Gly Cys Ser Ser Pro Ala Ala Ala
85 90 95
Val Leu Glu Asn Gln Arg Arg Glu Leu Glu Lys Leu Arg Ala Glu Leu
100 105 110
Glu Ala Glu Arg Ala Gly Trp Arg Ala Glu Arg Arg Arg Phe Ala Ala
115 120 125
Arg Glu Arg Gln Leu Arg Glu Glu Ala Glu Arg Glu Arg Arg Gln Leu
130 135 140
Ala Asp Arg Leu Arg Ser Lys Trp Glu Ala Gln Arg Ser Arg Glu Leu
145 150 155 160
Arg Gln Leu Gln Glu Met Gln Arg Glu Arg Glu Ala Glu Ile Arg
165 170 175
Gln Leu Leu Arg Trp Lys Glu Ala Glu Gln Arg Gln Leu Gln Gln Leu
180 185 190
Leu His Arg Glu Arg Asp Gly Val Val Arg Gln Ala Arg Glu Leu Gln
195 200 205
Arg Gln Leu Ala Glu Glu Leu Val Asn Arg Gly His Cys Ser Arg Pro

210	215	220
Gly Ala Ser Glu Val Ser	Ala Ala Gln Cys Arg	Cys Arg Leu Gln Glu
225	230	235
Val Leu Ala Gln Leu Arg	Trp Gln Thr Asp	Gly Glu Gln Ala Ala Arg
245	250	255
Ile Arg Tyr Leu Gln Ala	Ala Leu Glu Val	Glu Arg Gln Leu Phe Leu
260	265	270
Lys Tyr Ile Leu Ala His	Phe Arg Gly His	Pro Ala Leu Ser Gly Ser
275	280	285
Pro Asp Pro Gln Ala Val	His Ser Leu Glu Glu	Pro Leu Pro Gln Thr
290	295	300
Ser Ser Gly Ser Cys His	Ala Pro Lys Pro	Ala Cys Gln Leu Gly Ser
305	310	315
Leu Asp Ser Leu Ser Ala	Glu Val Gly Val	Arg Ser Arg Ser Leu Gly
325	330	335
Leu Val Ser Ser Ala Cys	Ser Ser Ser Pro	Asp Gly Leu Leu Ser Thr
340	345	350
His Ala Ser Ser Leu Asp	Cys Phe Ala Pro	Ala Cys Ser Arg Ser Leu
355	360	365
Asp Ser Thr Arg Ser Leu	Pro Lys Ala Ser	Lys Ser Glu Glu Arg Pro
370	375	380
Ser Ser Pro Asp Thr Ser	Thr Pro Gly Ser	Arg Arg Leu Ser Pro Pro
385	390	395
Pro Ser Pro Leu Pro Pro	Pro Pro Pro Pro	Ser Ala His Arg Lys Leu
405	410	415
Ser Asn Pro Arg Gly Gly	Glu Gly Ser Glu	Ser Gln Pro Cys Glu Val
420	425	430
Leu Thr Pro Ser Pro Pro	Gly Leu Gly His	His Glu Leu Ile Lys Leu
435	440	445
Asn Trp Leu Leu Ala Lys	Ala Leu Trp Val	Leu Ala Arg Arg Cys Tyr
450	455	460
Thr Leu Gln Glu Glu Asn	Lys Gln Leu Arg	Arg Ala Gly Cys Pro Tyr
465	470	475
Gln Ala Asp Glu Lys Val	Lys Arg Leu Lys	Val Lys Arg Ala Glu Leu
485	490	495
Thr Gly Leu Ala Arg Arg	Leu Ala Asp Arg	Ala Arg Glu Leu Gln Glu
500	505	510
Thr Asn Leu Arg Ala Val	Ser Ala Pro Ile	Pro Gly Glu Ser Cys Ala
515	520	525
Gly Leu Glu Leu Cys Gln	Val Phe Ala Arg	Gln Arg Ala Arg Asp Leu
530	535	540
Ser Glu Gln Ala Ser Ala	Pro Leu Ala Lys	Asp Lys Gln Ile Glu Glu
545	550	555
Leu Arg Gln Glu Cys His	Leu Leu Gln Ala	Arg Val Ala Ser Gly Pro
565	570	575
Cys Ser Asp Leu His Thr	Gly Arg Gly Gly	Pro Cys Thr Gln Trp Leu
580	585	590
Asn Val Arg Asp Leu Asp	Arg Leu Gln Arg	Glu Ser Gln Arg Glu Val
595	600	605
Leu Arg Leu Gln Arg Gln	Leu Met Leu Gln	Gln Gly Asn Gly Gly Ala
610	615	620
Trp Pro Glu Ala Gly Gly	Gln Ser Ala Thr	Cys Glu Glu Val Arg Arg
625	630	635
Gln Met Leu Ala Leu Glu	Arg Glu Leu Asp	Gln Arg Arg Arg Glu Cys
645	650	655
Gln Glu Leu Gly Ala Gln	Ala Ala Pro Ala	Arg Arg Arg Gly Glu Glu
660	665	670
Ala Glu Thr Gln Leu Gln	Ala Ala Leu Leu	Lys Asn Ala Trp Leu Ala
675	680	685
Glu Glu Asn Gly Arg Leu	Gln Ala Lys Thr	Asp Trp Val Arg Lys Val
690	695	700
Glu Ala Glu Asn Ser Glu	Val Arg Gly His	Leu Gly Arg Ala Cys Gln
705	710	715
Glu Arg Asp Ala Ser Gly	Leu Ile Ala Glu	Gln Leu Leu Gln Gln Ala

5175

1235	1240	1245
Val Pro Ala Gln Ile Pro Glu Asp Phe Phe Met Cys His Arg Trp Pro		
1250	1255	1260
Glu Thr Pro Pro Phe Ser Tyr Thr Cys Gly Asp Pro Ser Thr Tyr Arg		
1265	1270	1275
Val Thr Phe Pro Val Cys Pro Gln Lys Leu Ser Leu Ala Pro Pro Ser		1280
1285	1290	1295
Ala Lys Ala Ser Pro His Asn Pro Gly Ser Cys Gly Glu Pro Gln Ala		
1300	1305	1310
Lys Phe Leu Glu Ala Phe Phe Glu Glu Pro Pro Arg Arg Gln Ser Pro		
1315	1320	1325
Val Ser Asn Leu Gly Ser Glu Gly Glu Cys Pro Ser Ser Gly Ala Gly		
1330	1335	1340
Ser Gln Ala Gln Glu Leu Ala Glu Ala Trp Glu Gly Cys Arg Lys Asp		
1345	1350	1355
Leu Leu Phe Gln Lys Ser Pro Gln Asn His Arg Pro Pro Ser Val Ser		1360
1365	1370	1375
Asp Gln Thr Gly Glu Lys Glu Asn Cys Tyr Gln His Met Gly Thr Ser		
1380	1385	1390
Lys Ser Pro Ala Pro Gly Phe Ile His Leu Arg Thr Glu Cys Gly Pro		
1395	1400	1405
Arg Lys Glu Pro Cys Gln Glu Lys Ala Ala Leu Glu Arg Val Leu Arg		
1410	1415	1420
Gln Lys Gln Asp Ala Gln Gly Phe Thr Pro Pro Gln Leu Gly Ala Ser		
1425	1430	1435
Gln Gln Tyr Ala Ser Asp Phe His Asn Val Leu Lys Glu Glu Gln Glu		1440
1445	1450	1455
Ala Leu Cys Leu Asp Leu Trp Gly Thr Glu Arg Arg Glu Glu Arg Arg		
1460	1465	1470
Glu Pro Glu Pro His Ser Arg Gln Gly Gln Ala Leu Gly Val Lys Arg		
1475	1480	1485
Gly Cys Gln Leu His Glu Pro Ser Ser Ala Leu Cys Pro Ala Pro Ser		
1490	1495	1500
Ala Lys Val Ile Lys Met Pro Arg Gly Gly Pro Gln Gln Leu Gly Thr		
1505	1510	1515
Gly Ala Asn Thr Pro Ala Arg Val Phe Val Ala Leu Ser Asp Tyr Asn		1520
1525	1530	1535
Pro Leu Val Met Ser Ala Asn Leu Lys Ala Ala Glu Glu Glu Leu Val		
1540	1545	1550
Phe Gln Lys Arg Gln Leu Leu Arg Val Trp Gly Ser Gln Asp Thr His		
1555	1560	1565
Asp Phe Tyr Leu Ser Glu Cys Asn Arg Gln Val Gly Asn Ile Pro Gly		
1570	1575	1580
Arg Leu Val Ala Glu Met Glu Val Gly Thr Glu Gln Thr Asp Arg Arg		
1585	1590	1595
Trp Arg Ser Pro Ala Gln Gly His Leu Pro Ser Val Ala His Leu Glu		1600
1605	1610	1615
Asp Phe Gln Gly Leu Thr Ile Pro Gln Gly Ser Ser Leu Val Leu Gln		
1620	1625	1630
Gly Asn Ser Lys Arg Leu Pro Leu Trp Thr Pro Lys Ile Met Ile Ala		
1635	1640	1645
Ala Leu Asp Tyr Asp Pro Gly Asp Gly Gln Met Gly Gly Gln Gly Lys		
1650	1655	1660
Gly Arg Leu Ala Leu Arg Ala Gly Asp Val Val Met Val Tyr Gly Pro		
1665	1670	1675
Met Asp Asp Gln Gly Phe Tyr Tyr Gly Glu Leu Gly Gly His Arg Gly		1680
1685	1690	1695
Leu Val Pro Ala Asn Leu Arg Ile Lys Met Ser Ser Gln Gly His		
1700	1705	17101711

<210> 3466

<211> 371

<212> PRT

<213> Homo sapiens

<400> 3466

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Met Ser Lys Pro Pro Asp Leu Leu Leu Arg Leu Leu Arg Gly Ala Pro
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Arg Gln Arg Val Cys Thr Leu Phe Ile Ile Gly Phe Lys Phe Thr Phe
           20           25           30
Phe Val Ser Ile Met Ile Tyr Trp His Val Val Gly Glu Pro Lys Glu
           35           40           45
Lys Gly Gln Leu Tyr Asn Leu Pro Ala Glu Ile Pro Cys Pro Thr Leu
           50           55           60
Thr Pro Pro Thr Pro Pro Ser His Gly Pro Thr Pro Gly Asn Ile Phe
           65           70           75           80
Phe Leu Glu Thr Ser Asp Arg Thr Asn Pro Asn Phe Leu Phe Met Cys
           85           90           95
Ser Val Glu Ser Ala Ala Arg Thr His Pro Glu Ser His Val Leu Val
           100          105          110
Leu Met Lys Gly Leu Pro Gly Gly Asn Ala Ser Leu Pro Arg His Leu
           115          120          125
Gly Ile Ser Leu Leu Ser Cys Phe Pro Asn Val Gln Met Leu Pro Leu
           130          135          140
Asp Leu Arg Glu Leu Phe Arg Asp Thr Pro Leu Ala Asp Trp Tyr Ala
           145          150          155          160
Ala Val Gln Gly Arg Trp Glu Pro Tyr Leu Leu Pro Val Leu Ser Asp
           165          170          175
Ala Ser Arg Ile Ala Leu Met Trp Lys Phe Gly Gly Ile Tyr Leu Asp
           180          185          190
Thr Asp Phe Ile Val Leu Lys Asn Leu Arg Asn Leu Thr Asn Val Leu
           195          200          205
Gly Thr Gln Ser Arg Tyr Val Leu Asn Gly Ala Phe Leu Ala Phe Glu
           210          215          220
Arg Arg His Glu Phe Met Ala Leu Cys Met Arg Asp Phe Val Asp His
           225          230          235          240
Tyr Asn Gly Trp Ile Trp Gly His Gln Gly Pro Gln Leu Leu Thr Arg
           245          250          255
Val Phe Lys Lys Trp Cys Ser Ile Arg Ser Leu Ala Glu Ser Arg Ala
           260          265          270
Cys Arg Gly Val Thr Thr Leu Pro Pro Glu Ala Phe Tyr Pro Ile Pro
           275          280          285
Trp Gln Asp Trp Lys Lys Tyr Phe Glu Asp Ile Asn Pro Glu Glu Leu
           290          295          300
Pro Arg Leu Leu Ser Ala Thr Tyr Ala Val His Val Trp Asn Lys Lys
           305          310          315          320
Ser Gln Gly Thr Arg Phe Glu Ala Thr Ser Arg Ala Leu Leu Ala Gln
           325          330          335
Leu His Ala Arg Tyr Cys Pro Thr Thr His Glu Asp His Glu Asn Val
           340          345          350
Leu Val Lys Gly Pro Ala Gly His Leu Pro Asn Leu Leu Leu Met Gly
           355          360          365
His Trp
           370

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<210> 3467

<211> 725

<212> PRT

<213> Homo sapiens

<400> 3467

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Met Ala Lys Val Ile Leu Lys Gln Ser Lys Gln Cys Lys Asn Leu Leu

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Thr	Cys	Lys	Val	Ala	Gln	Val	Cys	Pro	Val	Cys	Gly	Cys	Leu	His	Cys	
			20					25					30			
Tyr	Phe	Trp	Trp	Leu	Ser	Gly	Leu	Glu	Ser	Arg	Arg	Pro	Ser	Ser	Pro	
		35					40					45				
Leu	Ile	Asp	Ile	Lys	Pro	Ile	Glu	Phe	Gly	Val	Leu	Ser	Ala	Lys	Lys	
	50					55					60					
Glu	Pro	Ile	Gln	Pro	Ser	Val	Leu	Arg	Arg	Thr	Tyr	Asn	Pro	Asp	Asp	
65					70					75				80		
Tyr	Phe	Arg	Lys	Phe	Glu	Pro	His	Leu	Tyr	Ser	Leu	Asp	Ser	Asn	Ser	
				85					90					95		
Asp	Asp	Val	Asp	Ser	Leu	Thr	Asp	Glu	Glu	Ile	Leu	Ser	Lys	Tyr	Gln	
		100						105					110			
Leu	Gly	Met	Leu	His	Phe	Ser	Thr	Gln	Tyr	Asp	Leu	Leu	His	Asn	His	
	115						120					125				
Leu	Thr	Val	Arg	Val	Ile	Glu	Ala	Arg	Asp	Leu	Pro	Pro	Pro	Ile	Ser	
	130					135					140					
His	Asp	Gly	Ser	Arg	Gln	Asp	Met	Ala	His	Ser	Asn	Pro	Tyr	Val	Lys	
145					150					155					160	
Ile	Cys	Leu	Leu	Pro	Asp	Gln	Lys	Asn	Ser	Lys	Gln	Thr	Gly	Val	Lys	
				165				170						175		
Arg	Lys	Thr	Gln	Lys	Pro	Val	Phe	Glu	Glu	Arg	Tyr	Thr	Phe	Glu	Ile	
		180						185					190			
Pro	Phe	Leu	Glu	Ala	Gln	Arg	Arg	Thr	Leu	Leu	Leu	Thr	Val	Val	Asp	
	195						200					205				
Phe	Asp	Lys	Phe	Ser	Arg	His	Cys	Val	Ile	Gly	Lys	Val	Ser	Val	Pro	
	210				215					220						
Leu	Cys	Glu	Val	Asp	Leu	Val	Lys	Gly	Gly	His	Trp	Trp	Lys	Ala	His	
225					230					235					240	
Asp	Ser	Gln	Phe	Ser	Ala	Pro	Gly	Leu	Pro	Ala	Asp	Gln	Gln	Phe	Phe	
				245				250						255		
Ala	Asp	Leu	Phe	Ser	Gly	Leu	Val	Leu	Asn	Pro	Gln	Leu	Leu	Gly	Arg	
		260						265					270			
Val	Trp	Phe	Ala	Ser	Gln	Pro	Ala	Ser	Leu	Pro	Val	Gly	Ser	Leu	Cys	
	275						280					285				
Ile	Asp	Phe	Pro	Arg	Leu	Asp	Ile	Val	Leu	Arg	Gly	Glu	Tyr	Gly	Asn	
	290				295						300					
Leu	Leu	Glu	Ala	Lys	Gln	Gln	Arg	Leu	Val	Glu	Gly	Glu	Met	Leu	Phe	
305					310					315					320	
Ile	Pro	Ala	Arg	Ala	Ala	Asn	Leu	Pro	Val	Asn	Asn	Lys	Pro	Val	Met	
				325				330						335		
Leu	Leu	Ser	Leu	Val	Phe	Ala	Pro	Thr	Trp	Leu	Gly	Leu	Ser	Phe	Tyr	
		340						345					350			
Asp	Ser	Arg	Thr	Thr	Ser	Leu	Leu	His	Pro	Ala	Arg	Gln	Ile	Gln	Leu	
	355						360					365				
Pro	Ser	Leu	Gln	Arg	Gly	Glu	Gly	Glu	Ala	Met	Leu	Ser	Ala	Leu	Thr	
	370				375					380						
Leu	Phe	Ser	Arg	Ser	Pro	Leu	Glu	Gln	Asn	Ile	Ile	Gln	Pro	Leu	Val	
385					390					395					400	
Leu	Ser	Leu	Leu	His	Leu	Cys	Gly	Ser	Val	Val	Asn	Met	Pro	Pro	Gly	
				405				410						415		
Asn	Ser	Gln	Pro	Arg	Gly	Asp	Phe	Leu	Tyr	His	Ser	Ile	Cys	Thr	Trp	
		420						425					430			
Val	Gln	Asp	Asn	Tyr	Ala	Gln	Pro	Leu	Thr	Arg	Glu	Ser	Val	Ala	Gln	
	435						440					445				
Phe	Phe	Asn	Ile	Thr	Pro	Asn	His	Leu	Ser	Lys	Leu	Phe	Ala	Gln	His	
	450					455					460					
Gly	Thr	Met	Arg	Phe	Ile	Glu	Tyr	Val	Arg	Trp	Val	Arg	Met	Ala	Lys	
465					470					475					480	
Ala	Arg	Met	Ile	Leu	Gln	Lys	Tyr	His	Leu	Ser	Ile	His	Glu	Val	Ala	
				485				490						495		
Gln	Arg	Cys	Gly	Phe	Pro	Asp	Ser	Asp	Tyr	Phe	Cys	Arg	Val	Phe	Arg	
		500						505					510			
Arg	Gln	Phe	Gly	Met	Asp	Tyr	Val	Asp	Ile	Leu	Gln	Ile	His	Arg	Trp	

515	520	525
Asp Tyr Asn Thr Pro Ile Glu	Glu Thr Leu Glu Ala Leu Asn Asp Val	
530	535	540
Val Lys Ala Gly Lys Ala Arg Tyr Ile Gly Ala Ser Ser Met His Ala		
545	550	555
Ser Gln Phe Ala Gln Ala Leu Glu Leu Gln Lys Gln His Gly Trp Ala		560
565	570	575
Gln Phe Val Ser Met Gln Asp His Tyr Asn Leu Ile Tyr Arg Glu Glu		
580	585	590
Glu Arg Glu Met Leu Pro Leu Cys Tyr Gln Glu Gly Val Ala Val Ile		
595	600	605
Pro Trp Ser Pro Leu Ala Arg Gly Arg Leu Thr Arg Pro Trp Gly Glu		
610	615	620
Thr Thr Ala Arg Leu Val Ser Asp Glu Val Gly Lys Asn Leu Tyr Lys		
625	630	635
Glu Ser Asp Glu Asn Asp Ala Gln Ile Ala Glu Arg Leu Thr Gly Val		640
645	650	655
Ser Glu Glu Leu Gly Ala Thr Arg Ala Gln Val Ala Leu Ala Trp Leu		
660	665	670
Leu Ser Lys Pro Gly Ile Ala Ala Pro Ile Ile Gly Thr Ser Arg Glu		
675	680	685
Glu Gln Leu Asp Glu Leu Leu Asn Ala Val Asp Ile Thr Leu Lys Pro		
690	695	700
Glu Gln Ile Ala Glu Leu Glu Thr Pro Tyr Lys Pro His Pro Val Val		
705	710	715
Gly Phe Lys		720
723		

<210> 3468
 <211> 1023
 <212> PRT
 <213> Homo sapiens

<400> 3468

Ala Leu Pro Leu Pro Leu Pro Thr Leu Tyr Pro Gly Met Ser Arg Arg	
1	5
Lys Gln Arg Lys Pro Gln Gln Leu Ile Ser Asp Cys Glu Gly Pro Ser	10
20	25
Ala Ser Glu Asn Gly Asp Ala Ser Glu Glu Asp His Pro Gln Val Cys	30
35	40
Ala Lys Cys Cys Ala Gln Phe Thr Asp Pro Thr Glu Phe Leu Ala His	45
50	55
Gln Asn Ala Cys Ser Thr Asp Pro Pro Val Met Val Ile Ile Gly Gly	60
65	70
Gln Glu Asn Pro Asn Asn Ser Ser Ala Ser Ser Glu Pro Arg Pro Glu	75
85	90
Gly His Asn Asn Pro Gln Val Met Asp Thr Glu His Ser Asn Pro Pro	95
100	105
Asp Ser Gly Ser Ser Val Pro Thr Asp Pro Thr Trp Gly Pro Glu Arg	110
115	120
Arg Gly Glu Glu Ser Ser Gly His Phe Leu Val Ala Ala Thr Gly Thr	125
130	135
Ala Ala Gly Gly Gly Gly Gly Leu Ile Leu Ala Ser Pro Lys Leu Gly	140
145	150
Ala Thr Pro Leu Pro Pro Glu Ser Thr Pro Ala Pro Pro Pro Pro Pro	155
165	170
Pro Pro Pro Pro Pro Pro Gly Val Gly Ser Gly His Leu Asn Ile Pro	175
180	185
Leu Ile Leu Glu Glu Leu Arg Val Leu Gln Gln Arg Gln Ile His Gln	190
195	200
Met Gln Met Thr Glu Gln Ile Cys Arg Gln Val Leu Leu Leu Gly Ser	205

210	215	220
Leu Gly Gln Thr Val Gly Ala Pro Ala Ser Pro Ser Glu Leu Pro Gly		
225	230	235
Thr Gly Thr Ala Ser Ser Thr Lys Pro Leu Leu Pro Leu Phe Ser Pro		240
	245	250
Ile Lys Pro Val Gln Thr Ser Lys Thr Leu Ala Ser Ser Ser Ser Ser		255
	260	265
Ser Ser Ser Ser Ser Gly Ala Glu Thr Pro Lys Gln Ala Phe Phe His		270
	275	280
Leu Tyr His Pro Leu Gly Ser Gln His Pro Phe Ser Ala Gly Gly Val		285
	290	295
Gly Arg Ser His Lys Pro Thr Pro Ala Pro Ser Pro Ala Leu Pro Gly		300
305	310	315
Ser Thr Asp Gln Leu Ile Ala Ser Pro His Leu Ala Phe Pro Ser Thr		320
	325	330
Thr Gly Leu Leu Ala Ala Gln Cys Leu Gly Ala Ala Arg Gly Leu Glu		335
	340	345
Ala Thr Ala Ser Pro Gly Leu Leu Lys Pro Lys Asn Gly Ser Gly Glu		350
	355	360
Leu Ser Tyr Gly Glu Val Met Gly Pro Leu Glu Lys Pro Gly Gly Arg		365
	370	375
His Lys Cys Arg Phe Cys Ala Lys Val Phe Gly Ser Asp Ser Ala Leu		380
385	390	395
Gln Ile His Leu Arg Ser His Thr Gly Glu Arg Pro Tyr Lys Cys Asn		400
	405	410
Val Cys Gly Asn Arg Phe Thr Thr Arg Gly Asn Leu Lys Val His Phe		415
	420	425
His Arg His Arg Glu Lys Tyr Pro His Val Gln Met Asn Pro His Pro		430
	435	440
Val Pro Glu His Leu Asp Tyr Val Ile Thr Ser Ser Gly Leu Pro Tyr		445
	450	455
Gly Met Ser Val Pro Pro Glu Lys Ala Glu Glu Glu Ala Ala Thr Pro		460
465	470	475
Gly Gly Gly Val Glu Arg Lys Pro Leu Val Ala Ser Thr Thr Ala Leu		480
	485	490
Ser Ala Thr Glu Ser Leu Thr Leu Leu Ser Thr Ser Ala Gly Thr Ala		495
	500	505
Thr Ala Pro Gly Leu Pro Ala Phe Asn Lys Phe Val Leu Met Lys Ala		510
	515	520
Val Glu Pro Lys Asn Lys Ala Asp Glu Asn Thr Pro Pro Gly Ser Glu		525
	530	535
Gly Ser Ala Ile Ser Gly Val Ala Glu Ser Ser Thr Ala Thr Arg Met		540
545	550	555
Gln Leu Ser Lys Leu Val Thr Ser Leu Pro Ser Trp Ala Leu Leu Thr		560
	565	570
Asn His Phe Lys Ser Thr Gly Ser Phe Pro Leu Pro Leu Cys Ala Arg		575
	580	585
Ala Leu Gly Ala Ser Pro Ser Glu Thr Ser Lys Leu Gln Gln Leu Val		590
	595	600
Glu Lys Ile Asp Arg Gln Gly Ala Val Ala Val Thr Ser Ala Ala Ser		605
	610	615
Gly Ala Pro Thr Thr Ser Ala Pro Ala Pro Ser Ser Ser Ala Ser Ser		620
625	630	635
Gly Pro Asn Gln Cys Val Ile Cys Leu Arg Val Leu Ser Cys Pro Arg		640
	645	650
Ala Leu Arg Leu His Tyr Gly Gln His Gly Gly Glu Arg Pro Phe Lys		655
	660	665
Cys Lys Val Cys Gly Arg Ala Phe Ser Thr Arg Gly Asn Leu Arg Ala		670
	675	680
His Phe Val Gly His Lys Ala Ser Pro Ala Ala Arg Ala Gln Asn Ser		685
	690	695
Cys Pro Ile Cys Gln Lys Lys Phe Thr Asn Ala Val Thr Leu Gln Gln		700
705	710	715
His Val Arg Met His Leu Gly Gly Gln Ile Pro Asn Gly Gly Thr Ala		720

				725						730					735				
Leu	Pro	Glu	Gly	Gly	Gly	Ala	Ala	Gln	Glu	Asn	Gly	Ser	Glu	Gln	Ser				
			740						745					750					
Thr	Val	Ser	Gly	Ala	Gly	Ser	Phe	Pro	Gln	Gln	Gln	Ser	Gln	Gln	Pro				
		755					760					765							
Ser	Pro	Glu	Glu	Glu	Leu	Ser	Glu	Glu	Glu	Glu	Glu	Glu	Asp	Glu	Glu				
	770					775					780								
Glu	Glu	Glu	Asp	Val	Thr	Asp	Glu	Asp	Ser	Leu	Ala	Gly	Arg	Gly	Ser				
785					790					795					800				
Glu	Ser	Gly	Gly	Glu	Lys	Ala	Ile	Ser	Val	Arg	Gly	Asp	Ser	Glu	Glu				
			805						810					815					
Ala	Ser	Gly	Ala	Glu	Glu	Glu	Val	Gly	Thr	Val	Ala	Ala	Ala	Ala	Ala	Thr			
			820					825					830						
Ala	Gly	Lys	Glu	Met	Asp	Ser	Asn	Glu	Lys	Thr	Thr	Gln	Gln	Ser	Ser				
	835						840					845							
Leu	Pro	Pro	Pro	Pro	Pro	Pro	Asp	Ser	Leu	Asp	Gln	Pro	Gln	Pro	Met				
	850					855					860								
Glu	Gln	Gly	Ser	Ser	Gly	Val	Leu	Gly	Gly	Lys	Glu	Glu	Gly	Gly	Lys				
865					870					875					880				
Pro	Glu	Arg	Ser	Ser	Ser	Pro	Ala	Ser	Ala	Leu	Thr	Pro	Glu	Gly	Glu				
				885					890					895					
Ala	Thr	Ser	Val	Thr	Leu	Val	Glu	Glu	Leu	Ser	Leu	Gln	Glu	Ala	Met				
			900					905					910						
Arg	Lys	Glu	Pro	Gly	Glu	Ser	Ser	Ser	Arg	Lys	Ala	Cys	Glu	Val	Cys				
	915						920					925							
Gly	Gln	Ala	Phe	Pro	Ser	Gln	Ala	Ala	Leu	Glu	Glu	His	Gln	Lys	Thr				
	930					935					940								
His	Pro	Lys	Glu	Gly	Pro	Leu	Phe	Thr	Cys	Val	Phe	Cys	Arg	Gln	Gly				
945					950					955					960				
Phe	Leu	Glu	Arg	Ala	Thr	Leu	Lys	Lys	His	Met	Leu	Leu	Ala	His	His				
				965					970					975					
Gln	Val	Gln	Pro	Phe	Ala	Pro	His	Gly	Pro	Gln	Asn	Ile	Ala	Ala	Leu				
			980					985					990						
Ser	Leu	Val	Pro	Gly	Cys	Ser	Pro	Ser	Ile	Thr	Ser	Thr	Gly	Leu	Ser				
	995						1000					1005							
Pro	Phe	Pro	Arg	Lys	Asp	Asp	Pro	Thr	Ile	Pro									
	1010					1015				1019									

<210> 3469

<211> 1888

<212> PRT

<213> Homo sapiens

<400> 3469

Asn	Leu	Arg	Pro	Leu	Ser	Phe	Ala	Leu	Phe	Leu	Gly	Asp	Pro	Asn	Met				
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Ala	Asn	Leu	Glu	Glu	Ser	Phe	Pro	Arg	Gly	Gly	Thr	Arg	Lys	Ile	His				
		20						25					30						
Lys	Pro	Glu	Lys	Ala	Phe	Gln	Gln	Ser	Val	Glu	Gln	Asp	Asn	Leu	Phe				
	35						40					45							
Asp	Ile	Ser	Thr	Glu	Glu	Gly	Ser	Thr	Lys	Arg	Lys	Lys	Ser	Gln	Lys				
	50					55					60								
Gly	Pro	Ala	Lys	Thr	Lys	Lys	Leu	Lys	Ile	Glu	Lys	Arg	Glu	Ser	Ser				
65					70					75					80				
Lys	Ser	Ala	Arg	Glu	Lys	Phe	Glu	Ile	Leu	Ser	Val	Glu	Ser	Leu	Cys				
				85					90					95					
Glu	Gly	Met	Arg	Ile	Leu	Gly	Cys	Val	Lys	Glu	Val	Asn	Glu	Leu	Glu				
		100					105					110							
Leu	Val	Ile	Ser	Leu	Pro	Asn	Gly	Leu	Gln	Gly	Phe	Val	Gln	Val	Thr				
	115					120						125							
Glu	Ile	Cys	Asp	Ala	Tyr	Thr	Lys	Lys	Leu	Asn	Glu	Gln	Val	Thr	Gln				

130		135		140
Glu Gln Pro Leu Lys Asp	Leu Leu His Leu Pro	Glu Leu Phe Ser Pro		
145		150		155
Gly Met Leu Val Arg Cys	Val Val Ser Ser Leu	Gly Ile Thr Asp Arg		160
		165		170
Gly Lys Lys Ser Val Lys	Leu Ser Leu Asn Pro	Lys Asn Val Asn Arg		175
		180		185
Val Leu Ser Ala Glu Ala	Leu Lys Pro Gly Met	Leu Leu Thr Gly Thr		190
		195		200
Val Ser Ser Leu Glu Asp	His Gly Tyr Leu Val	Asp Ile Gly Val Asp		205
		210		215
Gly Thr Arg Ala Phe Leu	Pro Leu Leu Lys Ala	Gln Glu Tyr Ile Arg		220
225		230		235
Gln Lys Asn Lys Gly Ala	Lys Leu Lys Val Gly	Gln Tyr Leu Asn Cys		240
		245		250
Ile Val Glu Lys Val Lys	Gly Asn Gly Gly Val	Val Ser Leu Ser Val		255
		260		265
Gly His Ser Glu Val Ser	Thr Ala Ile Ala Thr	Glu Gln Gln Ser Trp		270
		275		280
Asn Leu Asn Asn Leu Leu	Pro Gly Leu Val Val	Lys Ala Gln Val Gln		285
		290		295
Lys Val Thr Pro Phe Gly	Leu Thr Leu Asn Phe	Leu Thr Phe Phe Thr		300
305		310		315
Gly Val Val Asp Phe Met	His Leu Asp Pro Lys	Lys Ala Gly Thr Tyr		320
		325		330
Phe Ser Asn Gln Ala Val	Arg Ala Cys Ile Leu	Cys Val His Pro Arg		335
		340		345
Thr Arg Val Val His Leu	Ser Leu Arg Pro Ile	Phe Leu Gln Pro Gly		350
		355		360
Arg Pro Leu Thr Arg Leu	Ser Cys Gln Asn Leu	Gly Ala Val Leu Asp		365
		370		375
Asp Val Pro Val Gln Gly	Phe Phe Lys Lys Ala	Gly Ala Thr Phe Arg		380
385		390		395
Leu Lys Asp Gly Val Leu	Ala Tyr Ala Arg Leu	Ser His Leu Ser Asp		400
		405		410
Ser Lys Asn Val Phe Asn	Pro Glu Ala Phe Lys	Pro Gly Asn Thr His		415
		420		425
Lys Cys Arg Ile Ile Asp	Tyr Ser Gln Met Asp	Glu Leu Ala Leu Leu		430
		435		440
Ser Leu Arg Thr Ser Ile	Ile Glu Ala Gln Tyr	Leu Arg Tyr His Asp		445
		450		455
Ile Glu Pro Gly Ala Val	Val Lys Gly Thr Val	Leu Thr Ile Lys Ser		460
465		470		475
Tyr Gly Met Leu Val Lys	Val Gly Glu Gln Met	Arg Gly Leu Val Pro		480
		485		490
Pro Met His Leu Ala Asp	Ile Leu Met Lys Asn	Pro Glu Lys Lys Tyr		495
		500		505
His Ile Gly Asp Glu Val	Lys Cys Arg Val Leu	Leu Cys Asp Pro Glu		510
		515		520
Ala Lys Lys Leu Met Met	Thr Leu Lys Lys Thr	Leu Ile Glu Ser Lys		525
		530		535
Leu Pro Val Ile Thr Cys	Tyr Ala Asp Ala Lys	Pro Gly Leu Gln Thr		540
545		550		555
His Gly Phe Ile Ile Arg	Val Lys Asp Tyr Gly	Cys Ile Val Lys Phe		560
		565		570
Tyr Asn Asn Val Gln Gly	Leu Val Pro Lys His	Glu Leu Ser Thr Glu		575
		580		585
Tyr Ile Pro Asp Pro Glu	Arg Val Phe Tyr Thr	Gly Gln Val Val Lys		590
		595		600
Val Val Val Leu Asn Cys	Glu Pro Ser Lys Glu	Arg Met Leu Leu Ser		605
		610		615
Phe Lys Leu Ser Ser Asp	Pro Glu Pro Lys Lys	Glu Pro Ala Gly His		620
625		630		635
Ser Gln Lys Lys Gly Lys	Ala Ile Asn Ile Gly	Gln Leu Val Asp Val		640

				645					650					655			
Lys	Val	Leu	Glu	Lys	Thr	Lys	Asp	Gly	Leu	Glu	Val	Ala	Val	Leu	Pro		
			660					665						670			
His	Asn	Ile	Arg	Ala	Phe	Leu	Pro	Thr	Ser	His	Leu	Ser	Asp	His	Val		
		675					680						685				
Ala	Asn	Gly	Pro	Leu	Leu	His	His	Trp	Leu	Gln	Ala	Gly	Asp	Ile	Leu		
	690					695						700					
His	Arg	Val	Leu	Cys	Leu	Ser	Gln	Ser	Glu	Gly	Arg	Val	Leu	Leu	Cys		
705				710					715					720			
Arg	Lys	Pro	Ala	Leu	Val	Ser	Thr	Val	Glu	Gly	Gly	Gln	Asp	Pro	Lys		
			725					730						735			
Asn	Phe	Ser	Glu	Ile	His	Pro	Gly	Met	Leu	Leu	Ile	Gly	Phe	Val	Lys		
		740					745						750				
Ser	Ile	Lys	Asp	Tyr	Gly	Val	Phe	Ile	Gln	Leu	Pro	Ser	Gly	Leu	Ser		
	755					760						765					
Gly	Leu	Ala	Pro	Lys	Ala	Ile	Met	Ser	Asp	Lys	Phe	Val	Thr	Ser	Thr		
	770				775						780						
Ser	Asp	His	Phe	Val	Glu	Gly	Gln	Thr	Val	Ala	Ala	Lys	Val	Thr	Asn		
785				790					795						800		
Val	Asp	Glu	Glu	Lys	Gln	Arg	Met	Leu	Leu	Ser	Leu	Arg	Leu	Ser	Asp		
			805					810						815			
Cys	Gly	Leu	Gly	Asp	Leu	Ala	Ile	Thr	Ser	Leu	Leu	Leu	Leu	Asn	Gln		
		820						825						830			
Cys	Leu	Glu	Glu	Leu	Gln	Gly	Val	Arg	Ser	Leu	Met	Ser	Asn	Arg	Asp		
	835					840						845					
Ser	Val	Leu	Ile	Gln	Thr	Leu	Ala	Glu	Met	Thr	Pro	Gly	Met	Phe	Leu		
	850					855					860						
Asp	Leu	Val	Val	Gln	Glu	Val	Leu	Glu	Asp	Gly	Ser	Val	Val	Phe	Ser		
865				870					875						880		
Gly	Gly	Pro	Val	Pro	Asp	Leu	Val	Leu	Lys	Ala	Ser	Arg	Tyr	His	Arg		
			885					890						895			
Ala	Gly	Gln	Glu	Val	Glu	Ser	Gly	Gln	Lys	Lys	Lys	Val	Val	Ile	Leu		
		900						905						910			
Asn	Val	Asp	Leu	Leu	Lys	Leu	Glu	Val	His	Val	Ser	Leu	His	Gln	Asp		
	915						920						925				
Leu	Val	Asn	Arg	Lys	Ala	Arg	Lys	Leu	Arg	Lys	Gly	Ser	Glu	His	Gln		
	930					935					940						
Ala	Ile	Val	Gln	His	Leu	Glu	Lys	Ser	Phe	Ala	Ile	Ala	Ser	Leu	Val		
945				950					955						960		
Glu	Thr	Gly	His	Leu	Ala	Ala	Phe	Ser	Leu	Thr	Ser	His	Leu	Asn	Asp		
			965					970						975			
Thr	Phe	Arg	Phe	Asp	Ser	Glu	Lys	Leu	Gln	Val	Gly	Gln	Gly	Val	Ser		
		980						985						990			
Leu	Thr	Leu	Lys	Thr	Thr	Glu	Pro	Gly	Val	Thr	Gly	Leu	Leu	Leu	Ala		
	995					1000						1005					
Val	Glu	Gly	Pro	Ala	Ala	Lys	Arg	Thr	Met	Arg	Pro	Thr	Gln	Lys	Asp		
	1010					1015					1020						
Ser	Glu	Thr	Val	Asp	Glu	Asp	Glu	Glu	Val	Asp	Pro	Ala	Leu	Thr	Val		
1025				1030				1035						1040			
Gly	Thr	Ile	Lys	Lys	His	Thr	Leu	Ser	Ile	Gly	Asp	Met	Val	Thr	Gly		
			1045					1050						1055			
Thr	Val	Lys	Ser	Ile	Lys	Pro	Thr	His	Val	Val	Val	Thr	Leu	Glu	Asp		
		1060						1065					1070				
Gly	Ile	Ile	Gly	Cys	Ile	His	Ala	Ser	His	Ile	Leu	Asp	Asp	Val	Pro		
	1075					1080						1085					
Glu	Gly	Thr	Ser	Pro	Thr	Thr	Lys	Leu	Lys	Val	Gly	Lys	Thr	Val	Thr		
	1090					1095					1100						
Ala	Arg	Val	Ile	Gly	Gly	Arg	Asp	Met	Lys	Thr	Phe	Lys	Tyr	Leu	Pro		
1105				1110				1115						1120			
Ile	Ser	His	Pro	Arg	Phe	Val	Arg	Thr	Ile	Pro	Glu	Leu	Ser	Val	Arg		
			1125					1130					1135				
Pro	Ser	Glu	Leu	Glu	Asp	Gly	His	Thr	Ala	Leu	Asn	Thr	His	Ser	Val		
		1140						1145					1150				
Ser	Pro	Met	Glu	Lys	Ile	Lys	Gln	Tyr	Gln	Ala	Gly	Gln	Thr	Val	Thr		

1155	1160	1165
Cys Phe Leu Lys Lys Tyr Asn Val Val Lys Lys Trp Leu Glu Val Glu		
1170	1175	1180
Ile Ala Pro Asp Ile Arg Gly Arg Ile Pro Leu Leu Leu Thr Ser Leu		
1185	1190	1195
Ser Phe Lys Val Leu Lys His Pro Asp Lys Lys Phe Arg Val Gly Gln		1200
1205	1210	1215
Ala Leu Arg Ala Thr Val Val Gly Pro Asp Ser Ser Lys Thr Phe Leu		
1220	1225	1230
Cys Leu Ser Leu Thr Gly Pro His Lys Leu Glu Glu Gly Glu Val Ala		
1235	1240	1245
Met Gly Arg Val Val Lys Val Thr Pro Asn Glu Gly Leu Thr Val Ser		
1250	1255	1260
Phe Pro Phe Gly Lys Ile Gly Thr Val Ser Ile Phe His Met Ser Asp		
1265	1270	1275
Ser Tyr Ser Glu Thr Pro Leu Glu Asp Phe Val Pro Gln Lys Val Val		1280
1285	1290	1295
Arg Cys Tyr Ile Leu Ser Thr Ala Asp Asn Val Leu Thr Leu Ser Leu		
1300	1305	1310
Arg Ser Ser Arg Thr Asn Pro Glu Thr Lys Ser Lys Val Glu Asp Pro		
1315	1320	1325
Glu Ile Asn Ser Ile Gln Asp Ile Lys Glu Gly Gln Leu Leu Arg Gly		
1330	1335	1340
Tyr Val Gly Ser Ile Gln Pro His Gly Val Phe Phe Arg Leu Gly Pro		
1345	1350	1355
Ser Val Val Gly Leu Ala Arg Tyr Ser His Val Ser Gln His Ser Pro		1360
1365	1370	1375
Ser Lys Lys Ala Leu Tyr Asn Lys His Leu Pro Glu Gly Lys Leu Leu		
1380	1385	1390
Thr Ala Arg Val Leu Arg Leu Asn His Gln Lys Asn Leu Val Glu Leu		
1395	1400	1405
Ser Phe Leu Pro Gly Asp Thr Gly Lys Pro Asp Val Leu Ser Ala Ser		
1410	1415	1420
Leu Glu Gly Gln Leu Thr Lys Gln Glu Glu Arg Lys Thr Glu Ala Glu		
1425	1430	1435
Glu Arg Asp Gln Lys Gly Glu Lys Lys Asn Gln Lys Arg Asn Glu Lys		1440
1445	1450	1455
Lys Asn Gln Lys Gly Gln Glu Glu Val Glu Met Pro Ser Lys Glu Lys		
1460	1465	1470
Gln Gln Pro Gln Lys Pro Gln Ala Gln Lys Arg Gly Gly Arg Glu Cys		
1475	1480	1485
Arg Glu Ser Gly Ser Glu Gln Glu Arg Val Ser Lys Lys Pro Lys Lys		
1490	1495	1500
Ala Gly Leu Ser Glu Glu Asp Asp Ser Leu Val Asp Val Tyr Tyr Arg		
1505	1510	1515
Glu Gly Lys Glu Glu Ala Glu Glu Thr Asn Val Leu Pro Lys Glu Lys		1520
1525	1530	1535
Gln Thr Lys Pro Ala Glu Ala Pro Arg Leu Gln Leu Ser Ser Gly Phe		
1540	1545	1550
Ala Trp Asn Val Gly Leu Asp Ser Leu Thr Pro Ala Leu Pro Pro Leu		
1555	1560	1565
Ala Glu Ser Ser Asp Ser Glu Glu Asp Glu Lys Pro His Gln Ala Thr		
1570	1575	1580
Ile Lys Lys Ser Lys Lys Glu Arg Glu Leu Glu Lys Gln Lys Ala Glu		
1585	1590	1595
Lys Glu Leu Ser Arg Thr Glu Glu Ala Leu Met Asp Pro Gly Arg Gln		1600
1605	1610	1615
Pro Glu Ser Ala Asp Asp Phe Asp Arg Leu Val Leu Ser Ser Pro Asn		
1620	1625	1630
Ser Ser Ile Leu Trp Leu Gln Tyr Met Ala Phe His Leu Gln Ala Thr		
1635	1640	1645
Glu Ile Glu Lys Ala Arg Ala Val Ala Glu Arg Ala Leu Lys Thr Ile		
1650	1655	1660
Ser Phe Arg Glu Glu Gln Glu Lys Leu Asn Val Trp Val Ala Leu Leu		

1665 1670 1675 1680
 Asn Leu Glu Asn Met Tyr Gly Ser Gln Glu Ser Leu Thr Lys Val Phe
 1685 1690 1695
 Glu Arg Ala Val Gln Tyr Asn Glu Pro Leu Lys Val Phe Leu His Leu
 1700 1705 1710
 Ala Asp Ile Tyr Ala Lys Ser Glu Lys Phe Gln Glu Ala Gly Glu Leu
 1715 1720 1725
 Tyr Asn Arg Met Leu Lys Arg Phe Arg Gln Glu Lys Ala Val Trp Ile
 1730 1735 1740
 Lys Tyr Gly Ala Phe Leu Leu Arg Arg Ser Gln Ala Ala Ala Ser His
 1745 1750 1755 1760
 Arg Val Leu Gln Arg Ala Leu Glu Cys Leu Pro Ser Lys Glu His Val
 1765 1770 1775
 Asp Val Ile Ala Lys Phe Ala Gln Leu Glu Phe Gln Leu Gly Asp Ala
 1780 1785 1790
 Glu Arg Ala Lys Ala Ile Phe Glu Asn Thr Leu Ser Thr Tyr Pro Lys
 1795 1800 1805
 Arg Thr Asp Val Trp Ser Val Tyr Ile Asp Met Thr Ile Lys His Gly
 1810 1815 1820
 Ser Gln Lys Asp Val Arg Asp Ile Phe Glu Arg Val Ile His Leu Ser
 1825 1830 1835 1840
 Leu Ala Pro Lys Arg Met Lys Phe Phe Phe Lys Arg Tyr Leu Asp Tyr
 1845 1850 1855
 Glu Lys Gln His Gly Thr Glu Lys Asp Val Gln Ala Val Lys Ala Lys
 1860 1865 1870
 Ala Leu Glu Tyr Val Glu Ala Lys Ser Ser Val Leu Glu Asp
 1875 1880 1885 1886

<210> 3470
 <211> 371
 <212> PRT
 <213> Homo sapiens

<400> 3470
 Thr Ala Ala Ala Pro Val Ala Pro Gly Thr Met Asp Asp Ala Thr Val
 1 5 10 15
 Leu Arg Lys Lys Gly Tyr Ile Val Gly Ile Asn Leu Gly Lys Gly Ser
 20 25 30
 Tyr Ala Lys Val Lys Ser Ala Tyr Ser Glu Arg Leu Lys Phe Asn Val
 35 40 45
 Ala Val Lys Ile Ile Ala Arg Lys Lys Thr Pro Thr Asp Phe Val Glu
 50 55 60
 Arg Phe Leu Pro Arg Glu Met Asp Ile Leu Ala Thr Val Asn His Gly
 65 70 75 80
 Ser Ile Ile Lys Thr Tyr Glu Ile Phe Glu Thr Ser Asp Gly Arg Ile
 85 90 95
 Tyr Ile Ile Met Glu Leu Gly Val Gln Gly Asp Leu Leu Glu Phe Ile
 100 105 110
 Lys Cys Gln Gly Ala Leu His Glu Asp Val Ala Arg Lys Met Phe Arg
 115 120 125
 Gln Leu Ser Ser Ala Val Lys Tyr Cys His Asp Leu Asp Ile Val His
 130 135 140
 Arg Asp Leu Lys Cys Glu Asn Leu Leu Leu Asp Lys Asp Phe Asn Ile
 145 150 155 160
 Lys Leu Ser Asp Phe Gly Phe Ser Lys Arg Cys Leu Arg Asp Ser Asn
 165 170 175
 Gly Arg Ile Ile Leu Ser Lys Thr Phe Cys Gly Ser Ala Ala Tyr Ala
 180 185 190
 Ala Pro Glu Val Leu Gln Ser Ile Pro Tyr Gln Pro Lys Val Tyr Asp
 195 200 205
 Ile Trp Ser Leu Gly Val Ile Leu Tyr Ile Met Val Cys Gly Ser Met

210	215	220
Pro Tyr Asp Asp Ser Asp	Ile Arg Lys Met	Leu Arg Ile Gln Lys Glu
225	230	235
His Arg Val Asp Phe Pro	Arg Ser Lys Asn	Leu Thr Cys Glu Cys Lys
245	250	255
Asp Leu Ile Tyr Arg Met	Leu Gln Pro Asp	Val Ser Lys Arg Leu His
260	265	270
Ile Asp Glu Ile Leu Ser	His Ser Trp Leu Gln	Pro Pro Lys Pro Lys
275	280	285
Ala Thr Ser Ser Ala Ser	Phe Lys Arg Glu Gly	Glu Gly Lys Tyr Arg
290	295	300
Ala Glu Cys Lys Leu Asp	Thr Lys Thr Gly	Leu Arg Pro Asp His Arg
305	310	315
Pro Asp His Lys Leu Gly	Ala Lys Thr Gln	His Arg Leu Leu Val Val
325	330	335
Pro Glu Asn Glu Asn Arg	Met Glu Asp Arg	Leu Ala Glu Thr Ser Arg
340	345	350
Ala Lys Asp His His Ile	Ser Gly Ala Glu	Val Gly Lys Ala Ser Thr
355	360	365
		368

<210> 3471

<211> 130

<212> PRT

<213> Homo sapiens

<400> 3471

Thr Glu Arg Gly Ala Pro	Gln His Pro Thr	Leu Pro Leu Pro	Ser Leu
1	5	10	15
Thr Pro Ser Ser Val	His Thr Gly Gln	Pro Lys Thr Thr	Pro Ser Val
20	25	30	
Ile Leu Phe Leu Pro	Ser Cys Glu Glu	Pro Gln Ala Asn	Lys Ala Thr
35	40	45	
Leu Val Cys Leu Met	Asn Asn Phe Tyr	Pro Gly Ile Leu	Met Val Thr
50	55	60	
Trp Lys Ala Asp Gly	Thr Leu Ile Thr	Gln Ser Val Glu	Lys Thr Thr
65	70	75	80
Pro Ser Lys Gln Ser	Asn Asn Lys Tyr	Val Ala Ser Ser	Tyr Leu Ser
85	90	95	
Leu Thr Pro Glu Gln	Trp Arg Ser Arg	Arg Ser Tyr Ser	Cys Gln Val
100	105	110	
Met Gln Glu Gly Ser	Thr Val Glu Lys	Ser Val Ala Pro	Ala Glu Cys
115	120	125	
Ser			
129			

<210> 3472

<211> 759

<212> PRT

<213> Homo sapiens

<400> 3472

Asp Lys Pro Thr Arg	His Lys Thr Tyr	Leu Ser Ser Ser	Trp Ala Lys
1	5	10	15
Met Ala Ala Ala Glu	Gly Pro Val Gly	Asp Gly Glu	Leu Trp Gln Thr
20	25	30	
Trp Leu Pro Asn His	Val Val Phe Leu	Arg Leu Arg	Glu Gly Leu Lys

35	40	45
Asn Gln Ser Pro Thr Glu	Ala Glu Lys Pro Ala Ser	Ser Ser Leu Pro
50	55	60
Ser Ser Pro Pro Pro Gln	Leu Leu Thr Arg Asn	Val Val Phe Gly Leu
65	70	75
Gly Gly Glu Leu Phe Leu	Trp Asp Gly Glu Asp	Ser Ser Phe Leu Val
85	90	95
Val Arg Leu Arg Gly Pro	Ser Gly Gly Gly Glu	Glu Pro Ala Leu Ser
100	105	110
Gln Tyr Gln Arg Leu Leu	Cys Ile Asn Pro Pro	Leu Phe Glu Ile Tyr
115	120	125
Gln Val Leu Leu Ser Pro	Thr Gln His His Val	Ala Leu Ile Gly Ile
130	135	140
Lys Gly Leu Met Val Leu	Glu Leu Pro Lys Arg	Trp Gly Lys Asn Ser
145	150	155
Glu Phe Glu Gly Gly Lys	Ser Thr Val Asn Cys	Ser Thr Thr Pro Val
165	170	175
Ala Glu Arg Phe Phe Thr	Ser Ser Thr Ser Leu	Thr Leu Lys His Ala
180	185	190
Ala Trp Tyr Pro Ser Glu	Ile Leu Asp Pro His	Val Val Leu Leu Thr
195	200	205
Ser Asp Asn Val Ile Arg	Ile Tyr Ser Leu Arg	Glu Pro Gln Thr Pro
210	215	220
Thr Asn Val Ile Ile Leu	Ser Glu Ala Glu Glu	Glu Ser Leu Val Leu
225	230	235
Asn Lys Gly Arg Ala Tyr	Thr Ala Ser Leu Gly	Glu Thr Ala Val Ala
245	250	255
Phe Asp Phe Gly Pro Leu	Ala Ala Val Pro Lys	Thr Leu Phe Gly Gln
260	265	270
Asn Gly Lys Asp Glu Val	Val Ala Tyr Pro Leu	Tyr Ile Leu Tyr Glu
275	280	285
Asn Gly Glu Thr Phe Leu	Thr Tyr Ile Ser Leu	Leu His Ser Pro Gly
290	295	300
Asn Ile Trp Lys Ala Val	Gly Ser Ile Ala His	Ala Ser Ala Ala Glu
305	310	315
Asp Asn Tyr Gly Tyr Asp	Ala Cys Ala Val Leu	Cys Leu Pro Cys Val
325	330	335
Pro Asn Ile Leu Val Ile	Ala Thr Glu Ser Gly	Met Leu Tyr His Cys
340	345	350
Val Val Leu Glu Gly Glu	Glu Glu Asp Asp His	Thr Ser Glu Lys Ser
355	360	365
Trp Asp Ser Arg Ile Asp	Leu Ile Pro Ser Leu	Tyr Val Phe Glu Cys
370	375	380
Val Glu Leu Glu Leu Ala	Leu Lys Leu Ala Ser	Gly Glu Asp Asp Pro
385	390	395
Phe Asp Ser Asp Phe Ser	Cys Pro Val Lys Leu	His Arg Asp Pro Lys
405	410	415
Cys Pro Ser Arg Tyr His	Cys Thr His Glu Ala	Gly Val His Ser Val
420	425	430
Gly Leu Thr Trp Ile His	Lys Leu His Lys Phe	Leu Gly Ser Asp Glu
435	440	445
Glu Asp Lys Asp Ser Leu	Gln Glu Leu Ser Thr	Glu Gln Lys Cys Phe
450	455	460
Val Glu His Ile Leu Cys	Thr Lys Pro Leu Pro	Cys Arg Gln Pro Ala
465	470	475
Pro Ile Arg Gly Phe Trp	Ile Val Pro Asp Ile	Leu Gly Pro Thr Met
485	490	495
Ile Cys Ile Thr Ser Thr	Tyr Glu Cys Leu Ile	Trp Pro Leu Leu Ser
500	505	510
Thr Val His Pro Ala Ser	Pro Pro Leu Leu Cys	Thr Arg Glu Asp Val
515	520	525
Glu Val Ala Glu Ser Pro	Leu Arg Val Leu Ala	Glu Thr Pro Asp Ser
530	535	540
Phe Glu Lys His Ile Arg	Ser Ile Leu Gln Arg	Ser Val Ala Asn Pro

545		550		555		560
Ala Phe Leu Lys	Ala Ser Glu Lys Asp Ile	Ala Pro Pro Pro	Glu Glu			
	565	570	575			
Cys Leu Gln Leu	Leu Ser Arg Ala Thr Gln Val Phe Arg	Glu Gln Tyr				
	580	585	590			
Ile Leu Lys Gln	Asp Leu Ala Lys Glu Glu Ile Gln Arg Arg	Val Lys				
	595	600	605			
Leu Leu Cys Asp	Gln Lys Lys Lys Glu Leu Glu Asp	Leu Ser Tyr Cys				
	610	615	620			
Arg Glu Glu Arg	Lys Ser Leu Arg Glu Met Ala Glu Arg	Leu Ala Asp				
	625	630	635			
Lys Tyr Glu Glu	Ala Lys Glu Lys Gln Glu Asp Ile Met	Asn Arg Met				
	645	650	655			
Lys Lys Leu Leu	His Ser Phe His Ser Glu Leu Pro Val	Leu Ser Asp				
	660	665	670			
Ser Glu Arg Asp	Met Lys Lys Glu Leu Gln Leu Ile Pro	Asp Gln Leu				
	675	680	685			
Arg His Leu Gly	Asn Ala Ile Lys Gln Val Thr Met Lys Lys	Asp Tyr				
	690	695	700			
Gln Gln Gln Lys	Met Glu Lys Val Leu Ser Leu Pro Lys Pro	Thr Ile				
	705	710	715			
Ile Leu Ser Ala	Tyr Gln Arg Lys Cys Ile Gln Ser Ile Leu	Lys Glu				
	725	730	735			
Glu Gly Glu His	Ile Arg Glu Met Val Lys Gln Ile Asn Asp	Ile Arg				
	740	745	750			
Asn His Val Asn	Phe					
	755	757				

<210> 3473

<211> 759

<212> PRT

<213> Homo sapiens

<400> 3473

Asp Lys Pro Thr	Arg His Lys Thr Tyr Leu Ser Ser Ser	Trp Ala Lys
1	5	10
Met Ala Ala Ala	Glu Gly Pro Val Gly Asp Gly Glu Leu Trp	Gln Thr
	20	25
Trp Leu Pro Asn	His Val Val Phe Leu Arg Leu Arg Glu Gly	Leu Lys
	35	40
Asn Gln Ser Pro	Thr Glu Ala Glu Lys Pro Ala Ser Ser Ser	Leu Pro
	50	55
Ser Ser Pro Pro	Pro Gln Leu Leu Thr Arg Asn Val Val Phe Gly	Leu
	65	70
Gly Gly Glu Leu	Phe Leu Trp Asp Gly Glu Asp Ser Ser Phe Leu	Val
	85	90
Val Arg Leu Arg	Gly Pro Ser Gly Gly Gly Glu Glu Pro Ala Leu	Ser
	100	105
Gln Tyr Gln Arg	Leu Leu Cys Ile Asn Pro Pro Leu Phe Glu Ile Tyr	
	115	120
Gln Val Leu Leu	Ser Pro Thr Gln His His Val Ala Leu Ile Gly Ile	
	130	135
Lys Gly Leu Met	Val Leu Glu Leu Pro Lys Arg Trp Gly Lys Asn Ser	
	145	150
Glu Phe Glu Gly	Gly Lys Ser Thr Val Asn Cys Ser Thr Thr Pro Val	
	165	170
Ala Glu Arg Phe	Phe Thr Ser Ser Thr Ser Leu Thr Leu Lys His Ala	
	180	185
Ala Trp Tyr Pro	Ser Glu Ile Leu Asp Pro His Val Val Leu Leu Thr	
	195	200
Ser Asp Asn Val	Ile Arg Ile Tyr Ser Leu Arg Glu Pro Gln Thr Pro	
	205	

210	215	220
Thr Asn Val Ile Ile Leu	Ser Glu Ala Glu Glu	Glu Ser Leu Val Leu
225	230	235
Asn Lys Gly Arg Ala Tyr	Thr Ala Ser Leu Gly	Glu Thr Ala Val Ala
245	250	255
Phe Asp Phe Gly Pro Leu	Ala Ala Val Pro Lys	Thr Leu Phe Gly Gln
260	265	270
Asn Gly Lys Asp Glu Val	Val Ala Tyr Pro Leu	Tyr Ile Leu Tyr Glu
275	280	285
Asn Gly Glu Thr Phe Leu	Thr Tyr Ile Ser Leu	Leu His Ser Pro Gly
290	295	300
Asn Ile Trp Lys Ala Val	Gly Ser Ile Ala His	Ala Ser Ala Ala Glu
305	310	315
Asp Asn Tyr Gly Tyr Asp	Ala Cys Ala Val Leu	Cys Leu Pro Cys Val
325	330	335
Pro Asn Ile Leu Val Ile	Ala Thr Glu Ser Gly	Met Leu Tyr His Cys
340	345	350
Val Val Leu Glu Gly Glu	Glu Glu Asp Asp His	Thr Ser Glu Lys Ser
355	360	365
Trp Asp Ser Arg Ile Asp	Leu Ile Pro Ser Leu	Tyr Val Phe Glu Cys
370	375	380
Val Glu Leu Glu Leu Ala	Leu Lys Leu Ala Ser	Gly Glu Asp Asp Pro
385	390	395
Phe Asp Ser Asp Phe Ser	Cys Pro Val Lys Leu	His Arg Asp Pro Lys
405	410	415
Cys Pro Ser Arg Tyr His	Cys Thr His Glu Ala	Gly Val His Ser Val
420	425	430
Gly Leu Thr Trp Ile His	Lys Leu His Lys Phe	Leu Gly Ser Asp Glu
435	440	445
Glu Asp Lys Asp Ser Leu	Gln Glu Leu Ser Thr	Glu Gln Lys Cys Phe
450	455	460
Val Glu His Ile Leu Cys	Thr Lys Pro Leu Pro	Cys Arg Gln Pro Ala
465	470	475
Pro Ile Arg Gly Phe Trp	Ile Val Pro Asp Ile	Leu Gly Pro Thr Met
485	490	495
Ile Cys Ile Thr Ser Thr	Tyr Glu Cys Leu Ile	Trp Pro Leu Leu Ser
500	505	510
Thr Val His Pro Ala Ser	Pro Pro Leu Leu Cys	Thr Arg Glu Asp Val
515	520	525
Glu Val Ala Glu Ser Pro	Leu Arg Val Leu Ala	Glu Thr Pro Asp Ser
530	535	540
Phe Glu Lys His Ile Arg	Ser Ile Leu Gln Arg	Ser Val Ala Asn Pro
545	550	555
Ala Phe Leu Lys Ala Ser	Glu Lys Asp Ile Ala	Pro Pro Pro Glu Glu
565	570	575
Cys Leu Gln Leu Leu Ser	Arg Ala Thr Gln Val	Phe Arg Glu Gln Tyr
580	585	590
Ile Leu Lys Gln Asp Leu	Ala Lys Glu Glu Ile	Gln Arg Arg Val Lys
595	600	605
Leu Leu Cys Asp Gln Lys	Lys Lys Glu Leu Glu	Asp Leu Ser Tyr Cys
610	615	620
Arg Glu Glu Arg Lys Ser	Leu Arg Glu Met Ala	Glu Arg Leu Ala Asp
625	630	635
Lys Tyr Glu Glu Ala Lys	Glu Lys Gln Glu Asp	Ile Met Asn Arg Met
645	650	655
Lys Lys Leu Leu His Ser	Phe His Ser Glu Leu	Pro Val Leu Ser Asp
660	665	670
Ser Glu Arg Asp Met Lys	Lys Glu Leu Gln Leu	Ile Pro Asp Gln Leu
675	680	685
Arg His Leu Gly Asn Ala	Ile Lys Gln Val Thr	Met Lys Lys Asp Tyr
690	695	700
Gln Gln Gln Lys Met Glu	Lys Val Leu Ser Leu	Pro Lys Pro Thr Ile
705	710	715
Ile Leu Ser Ala Tyr Gln	Arg Lys Cys Ile Gln	Ser Ile Leu Lys Glu

				725					730					735	
Glu	Gly	Glu	His	Ile	Arg	Glu	Met	Val	Lys	Gln	Ile	Asn	Asp	Ile	Arg
			740					745					750		
Asn	His	Val	Asn	Phe											
		755		757											

<210> 3474
 <211> 599
 <212> PRT
 <213> Homo sapiens

<400> 3474

Asp	Arg	Arg	Arg	Glu	Pro	Glu	Arg	His	Val	Arg	Val	Lys	Gln	Arg	Thr
1				5					10					15	
Ser	Val	Leu	Asn	Met	Leu	Arg	Arg	Leu	Asp	Lys	Ile	Arg	Phe	Arg	Gly
			20					25					30		
His	Lys	Arg	Asp	Asp	Phe	Leu	Asp	Leu	Ala	Glu	Ser	Pro	Asn	Ala	Ser
		35					40					45			
Asp	Thr	Glu	Cys	Ser	Asp	Glu	Ile	Pro	Leu	Lys	Val	Pro	Arg	Thr	Ser
	50					55					60				
Pro	Arg	Asp	Ser	Glu	Glu	Leu	Arg	Asp	Pro	Ala	Gly	Pro	Gly	Thr	Leu
	65				70					75					80
Ile	Met	Ala	Thr	Gly	Val	Gln	Asp	Phe	Asn	Arg	Thr	Glu	Phe	Asp	Arg
				85					90					95	
Leu	Asn	Glu	Ile	Lys	Gly	His	Leu	Glu	Ile	Ala	Leu	Leu	Glu	Lys	His
			100					105					110		
Phe	Leu	Gln	Glu	Glu	Leu	Arg	Lys	Leu	Arg	Glu	Glu	Thr	Asn	Ala	Glu
	115						120					125			
Met	Leu	Arg	Gln	Glu	Leu	Asp	Arg	Glu	Arg	Gln	Arg	Arg	Met	Glu	Leu
	130					135					140				
Glu	Gln	Lys	Val	Gln	Glu	Val	Leu	Lys	Ala	Arg	Thr	Glu	Glu	Gln	Met
	145				150					155					160
Ala	Gln	Gln	Pro	Pro	Lys	Gly	Gln	Ala	Gln	Ala	Ser	Asn	Gly	Ala	Glu
				165					170					175	
Arg	Arg	Ser	Gln	Gly	Leu	Ser	Ser	Arg	Leu	Gln	Lys	Trp	Phe	Tyr	Glu
			180					185					190		
Arg	Phe	Gly	Glu	Tyr	Val	Glu	Asp	Phe	Arg	Phe	Gln	Pro	Glu	Glu	Asn
	195						200					205			
Thr	Val	Glu	Thr	Glu	Glu	Pro	Leu	Ser	Ala	Arg	Arg	Leu	Thr	Glu	Asn
	210					215					220				
Met	Arg	Arg	Leu	Lys	Arg	Gly	Ala	Lys	Pro	Val	Thr	Asn	Phe	Val	Lys
	225				230					235					240
Asn	Leu	Ser	Ala	Leu	Ser	Asp	Trp	Tyr	Ser	Val	Tyr	Thr	Ser	Ala	Ile
			245						250					255	
Ala	Phe	Thr	Val	Tyr	Met	Asn	Ala	Val	Trp	His	Gly	Trp	Ala	Ile	Pro
			260					265					270		
Leu	Phe	Leu	Phe	Leu	Ala	Ile	Leu	Arg	Leu	Ser	Leu	Asn	Tyr	Leu	Ile
	275						280					285			
Ala	Arg	Gly	Trp	Arg	Ile	Gln	Trp	Ser	Ile	Val	Pro	Glu	Val	Ser	Glu
	290					295					300				
Pro	Val	Glu	Pro	Pro	Lys	Glu	Asp	Leu	Thr	Val	Ser	Glu	Lys	Phe	Gln
	305				310					315					320
Leu	Val	Leu	Asp	Val	Ala	Gln	Lys	Ala	Gln	Asn	Leu	Phe	Gly	Lys	Met
				325					330					335	
Ala	Asp	Ile	Leu	Glu	Lys	Ile	Lys	Asn	Leu	Phe	Met	Trp	Val	Gln	Pro
		340						345					350		
Glu	Ile	Thr	Gln	Lys	Leu	Tyr	Val	Ala	Leu	Trp	Ala	Ala	Phe	Leu	Ala
	355					360						365			
Ser	Cys	Phe	Phe	Pro	Tyr	Arg	Leu	Val	Gly	Leu	Ala	Val	Gly	Leu	Tyr
	370					375					380				
Ala	Gly	Ile	Lys	Phe	Phe	Leu	Ile	Asp	Phe	Ile	Phe	Lys	Arg	Cys	Pro

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385          390          395          400
Arg Leu Arg Ala Lys Tyr Asp Thr Pro Tyr Ile Ile Trp Arg Ser Leu
          405          410          415
Pro Thr Asp Pro Gln Leu Lys Glu Arg Ser Ser Ala Ala Val Ser Arg
          420          425          430
Arg Leu Gln Thr Thr Ser Ser Arg Ser Tyr Val Pro Ser Ala Pro Ala
          435          440          445
Gly Leu Gly Lys Glu Glu Asp Ala Gly Arg Phe His Ser Thr Lys Lys
          450          455          460
Gly Asn Phe His Glu Ile Phe Asn Leu Thr Glu Asn Glu Arg Pro Leu
465          470          475          480
Ala Val Cys Glu Asn Gly Trp Arg Cys Cys Leu Ile Asn Arg Asp Arg
          485          490          495
Lys Met Pro Thr Asp Tyr Ile Arg Asn Gly Val Leu Tyr Val Thr Glu
          500          505          510
Asn Tyr Leu Cys Phe Glu Ser Ser Lys Ser Gly Ser Ser Lys Arg Asn
          515          520          525
Lys Val Ile Lys Leu Val Asp Ile Thr Asp Ile Gln Lys Tyr Lys Val
          530          535          540
Leu Ser Val Leu Pro Gly Ser Gly Met Gly Ile Ala Val Ser Thr Pro
545          550          555          560
Ser Thr Gln Lys Pro Leu Val Phe Gly Ala Met Val His Arg Asp Glu
          565          570          575
Ala Phe Glu Thr Ile Leu Ser Gln Tyr Ile Lys Ile Thr Ser Ala Ala
          580          585          590
Ala Ser Gly Gly Asp Ser
          595          598

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<210> 3475

<211> 375

<212> PRT

<213> Homo sapiens

<400> 3475

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Thr Ala Ala Arg Arg Arg Gln Lys Gly Ala Ala Ala Ala Ala Glu Thr
 1          5          10          15
His Gly Gln Ala Lys Ala Lys Ser Gly Trp Leu Lys Pro Tyr Tyr Phe
          20          25          30
Ile Glu Leu Met Glu Ser Arg Lys Asp Ile Thr Asn Gln Glu Glu Leu
          35          40          45
Trp Lys Met Lys Pro Arg Arg Asn Leu Glu Glu Asp Asp Tyr Leu His
          50          55          60
Lys Asp Thr Gly Glu Thr Ser Met Leu Lys Arg Pro Val Leu Leu His
          65          70          75          80
Leu His Gln Thr Ala His Ala Asp Glu Phe Asp Cys Pro Ser Glu Leu
          85          90          95
Gln His Thr Gln Glu Leu Phe Pro Gln Trp His Leu Pro Ile Lys Ile
          100          105          110
Ala Ala Ile Ile Ala Ser Leu Thr Phe Leu Tyr Thr Leu Leu Arg Glu
          115          120          125
Val Ile His Pro Leu Ala Thr Ser His Gln Gln Tyr Phe Tyr Lys Ile
          130          135          140
Pro Ile Leu Val Ile Asn Lys Val Leu Pro Met Val Ser Ile Thr Leu
145          150          155          160
Leu Ala Leu Val Tyr Leu Pro Gly Val Ile Ala Ala Ile Val Gln Leu
          165          170          175
His Asn Gly Thr Lys Tyr Lys Lys Phe Pro His Trp Leu Asp Lys Trp
          180          185          190
Met Leu Thr Arg Lys Gln Phe Gly Leu Leu Ser Phe Phe Phe Ala Val
          195          200          205
Leu His Ala Ile Tyr Ser Leu Ser Tyr Pro Met Arg Arg Ser Tyr Arg

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210	215	220
Tyr Lys Leu Leu Asn Trp	Ala Tyr Gln Gln Val	Gln Gln Asn Lys Glu
225	230	235
Asp Ala Leu Ile Glu His	Asp Val Trp Arg Met	Glu Ile Tyr Val Ser
245	250	255
Leu Gly Ile Val Gly Leu	Ala Ile Leu Ala Leu	Ala Val Thr Ser
260	265	270
Ile Pro Ser Val Ser Asp	Ser Leu Thr Trp Arg	Glu Phe His Tyr Ile
275	280	285
Gln Ser Lys Leu Gly Ile	Val Ser Leu Leu Leu	Gly Thr Ile His Ala
290	295	300
Leu Ile Phe Ala Trp Asn	Lys Trp Ile Asp Ile	Lys Gln Phe Val Trp
305	310	315
Tyr Thr Pro Pro Thr Phe	Met Ile Ala Val Phe	Leu Pro Ile Val Val
325	330	335
Leu Ile Phe Lys Ser Ile	Leu Phe Leu Pro Cys	Leu Arg Lys Lys Ile
340	345	350
Leu Lys Ile Arg His Gly	Trp Glu Asp Val Thr	Lys Ile Asn Lys Thr
355	360	365
Glu Ile Cys Ser Gln Leu		
370	374	

<210> 3476

<211> 1016

<212> PRT

<213> Homo sapiens

<400> 3476

Ala Lys Ala Pro Pro Thr	Gly Glu Ser Ser Glu	Pro Glu Ala Lys Val
1	5	10
Leu His Thr Lys Arg Leu	Tyr Arg Ala Val Val	Glu Ala Val His Arg
20	25	30
Leu Asp Leu Ile Leu Cys	Asn Lys Thr Ala Tyr	Gln Glu Val Phe Lys
35	40	45
Pro Glu Asn Ile Ser Leu	Arg Asn Lys Leu Arg	Glu Leu Cys Val Lys
50	55	60
Leu Met Phe Leu His Pro	Val Asp Tyr Gly Arg	Lys Ala Glu Glu Leu
65	70	75
Leu Trp Arg Lys Val Tyr	Tyr Glu Val Ile Gln	Leu Ile Lys Thr Asn
85	90	95
Lys Lys His Ile His Ser	Arg Ser Thr Leu Glu	Cys Ala Tyr Arg Thr
100	105	110
His Leu Val Ala Gly Ile	Gly Phe Tyr Gln His	Leu Leu Tyr Ile
115	120	125
Gln Ser His Tyr Gln Leu	Glu Leu Gln Cys Cys	Ile Asp Trp Thr His
130	135	140
Val Thr Asp Pro Leu Ile	Gly Cys Lys Lys Pro	Val Ser Ala Ser Gly
145	150	155
Lys Glu Met Asp Trp Ala	Gln Met Ala Cys His	Arg Cys Leu Val Tyr
165	170	175
Leu Gly Asp Leu Ser Arg	Tyr Gln Asn Glu Leu	Ala Gly Val Asp Thr
180	185	190
Glu Leu Leu Ala Glu Arg	Phe Tyr Tyr Gln Ala	Leu Ser Val Ala Pro
195	200	205
Gln Ile Gly Met Pro Phe	Asn Gln Leu Gly Thr	Leu Ala Gly Ser Lys
210	215	220
Tyr Tyr Asn Val Glu Ala	Met Tyr Cys Tyr Leu	Arg Cys Ile Gln Ser
225	230	235
Glu Val Ser Phe Glu Gly	Ala Tyr Gly Asn Leu	Lys Arg Leu Tyr Asp
245	250	255
Lys Ala Ala Lys Met Tyr	His Gln Leu Lys Lys	Cys Glu Thr Arg Lys

			260					265				270			
Leu	Ser	Pro	Gly	Lys	Lys	Arg	Cys	Lys	Asp	Ile	Lys	Arg	Leu	Leu	Val
		275					280					285			
Asn	Phe	Met	Tyr	Leu	Gln	Ser	Leu	Leu	Gln	Pro	Lys	Ser	Ser	Ser	Val
		290					295					300			
Asp	Ser	Glu	Leu	Thr	Ser	Leu	Cys	Gln	Ser	Val	Leu	Glu	Asp	Phe	Asn
305					310					315					320
Leu	Cys	Leu	Phe	Tyr	Leu	Pro	Ser	Ser	Pro	Asn	Leu	Ser	Leu	Ala	Ser
			325						330					335	
Glu	Asp	Glu	Glu	Glu	Tyr	Glu	Ser	Gly	Tyr	Ala	Phe	Leu	Pro	Asp	Leu
		340						345					350		
Leu	Ile	Phe	Gln	Met	Val	Ile	Ile	Cys	Leu	Met	Cys	Val	His	Ser	Leu
		355					360					365			
Glu	Arg	Ala	Gly	Ser	Lys	Gln	Tyr	Ser	Ala	Ala	Ile	Ala	Phe	Thr	Leu
370						375					380				
Ala	Leu	Phe	Ser	His	Leu	Val	Asn	His	Val	Asn	Ile	Arg	Leu	Gln	Ala
385					390					395					400
Glu	Leu	Glu	Glu	Gly	Glu	Asn	Pro	Val	Pro	Ala	Phe	Gln	Ser	Asp	Gly
			405						410					415	
Thr	Asp	Glu	Pro	Glu	Ser	Lys	Glu	Pro	Val	Glu	Lys	Glu	Glu	Glu	Pro
		420						425					430		
Asp	Pro	Glu	Pro	Pro	Pro	Val	Thr	Pro	Gln	Val	Gly	Glu	Gly	Arg	Lys
		435					440					445			
Ser	Arg	Lys	Phe	Ser	Arg	Leu	Ser	Cys	Leu	Arg	Arg	Arg	Arg	His	Pro
		450				455						460			
Pro	Lys	Val	Gly	Asp	Asp	Ser	Asp	Leu	Ser	Glu	Gly	Phe	Glu	Ser	Asp
465					470					475					480
Ser	Ser	His	Asp	Ser	Ala	Arg	Ala	Ser	Glu	Gly	Ser	Asp	Ser	Gly	Ser
			485					490						495	
Asp	Lys	Ser	Leu	Glu	Gly	Gly	Gly	Thr	Ala	Phe	Asp	Ala	Glu	Thr	Asp
		500						505					510		
Ser	Glu	Met	Asn	Ser	Gln	Glu	Ser	Arg	Ser	Asp	Leu	Glu	Asp	Met	Glu
		515					520					525			
Glu	Glu	Glu	Gly	Thr	Arg	Ser	Pro	Thr	Leu	Glu	Pro	Pro	Arg	Gly	Arg
		530				535					540				
Ser	Glu	Ala	Pro	Asp	Ser	Leu	Asn	Gly	Pro	Leu	Gly	Pro	Ser	Glu	Ala
545					550					555					560
Ser	Ile	Ala	Ser	Asn	Leu	Gln	Ala	Met	Ser	Thr	Gln	Met	Phe	Gln	Thr
			565					570						575	
Lys	Arg	Cys	Phe	Arg	Leu	Ala	Pro	Thr	Phe	Ser	Asn	Leu	Leu	Leu	Gln
		580						585					590		
Pro	Thr	Thr	Asn	Pro	His	Thr	Ser	Ala	Ser	His	Arg	Pro	Cys	Val	Asn
		595					600						605		
Gly	Asp	Val	Asp	Lys	Pro	Ser	Glu	Pro	Ala	Ser	Glu	Glu	Gly	Ser	Glu
		610				615					620				
Ser	Glu	Gly	Ser	Glu	Ser	Ser	Gly	Arg	Ser	Cys	Arg	Asn	Glu	Arg	Ser
625					630					635					640
Ile	Gln	Glu	Lys	Leu	Gln	Val	Leu	Met	Ala	Glu	Gly	Leu	Leu	Pro	Ala
			645					650						655	
Val	Lys	Val	Phe	Leu	Asp	Trp	Leu	Arg	Thr	Asn	Pro	Asp	Leu	Ile	Ile
		660						665					670		
Val	Cys	Ala	Gln	Ser	Ser	Gln	Ser	Leu	Trp	Asn	Arg	Leu	Ser	Val	Leu
		675					680					685			
Leu	Asn	Leu	Leu	Pro	Ala	Ala	Gly	Glu	Leu	Gln	Glu	Ser	Gly	Leu	Ala
		690				695					700				
Leu	Cys	Pro	Glu	Val	Gln	Asp	Leu	Leu	Glu	Gly	Cys	Glu	Leu	Pro	Asp
705					710					715					720
Leu	Pro	Ser	Ser	Leu	Leu	Pro	Glu	Asp	Met	Ala	Leu	Arg	Asn	Leu	
			725					730					735		
Pro	Pro	Leu	Arg	Ala	Ala	His	Arg	Arg	Phe	Asn	Phe	Asp	Thr	Asp	Arg
		740						745					750		
Pro	Leu	Leu	Ser	Thr	Leu	Glu	Glu	Ser	Val	Val	Arg	Ile	Cys	Cys	Ile
		755					760					765			
Arg	Ser	Phe	Gly	His	Phe	Ile	Ala	Arg	Leu	Gln	Gly	Ser	Ile	Leu	Gln

770	775	780
Phe Asn Pro Glu Val Gly Ile Phe Val Ser Ile Ala Gln Ser Glu Gln		
785	790	795
Glu Ser Leu Leu Gln Gln Ala Gln Ala Gln Phe Arg Met Ala Gln Glu		800
	805	810
Glu Ala Arg Arg Asn Arg Leu Met Arg Asp Met Ala Gln Leu Arg Leu		815
	820	825
Gln Leu Glu Val Ser Gln Leu Glu Gly Ser Leu Gln Gln Pro Lys Ala		830
	835	840
Gln Ser Ala Met Ser Pro Tyr Leu Val Pro Asp Thr Gln Ala Leu Cys		845
	850	855
His His Leu Pro Val Ile Arg Gln Leu Ala Thr Ser Gly Arg Phe Ile		860
	865	870
Val Ile Ile Pro Arg Thr Val Ile Asp Gly Leu Asp Leu Leu Lys Lys		875
	885	890
Glu His Pro Gly Ala Arg Asp Gly Ile Arg Tyr Leu Glu Ala Glu Phe		895
	900	905
Lys Lys Gly Asn Arg Tyr Ile Arg Cys Gln Lys Glu Val Gly Lys Ser		910
	915	920
Phe Glu Arg His Lys Leu Lys Arg Gln Asp Ala Asp Ala Trp Thr Leu		925
	930	935
Tyr Lys Ile Leu Asp Ser Cys Lys Gln Leu Thr Leu Ala Gln Gly Ala		940
	945	950
Gly Glu Glu Asp Pro Ser Gly Met Val Thr Ile Ile Thr Gly Leu Pro		955
	965	970
Leu Asp Asn Pro Ser Val Leu Ser Gly Pro Met Gln Ala Ala Leu Gln		975
	980	985
Ala Ala Ala His Ala Ser Val Asp Ile Lys Asn Val Leu Asp Phe Tyr		990
	995	1000
Lys Gln Trp Lys Glu Ile Gly		1005
1010	1015	

<210> 3477

<211> 1301

<212> PRT

<213> Homo sapiens .

<400> 3477

Met Thr Glu Pro Arg Glu Arg Arg Gly Tyr Ser Val Pro Pro Arg Pro	
1 5 10 15	
Glu Val Gly Thr Gln Ala Thr Glu Trp Arg Val Glu Glu Ser Asn Phe	
20 25 30	
Asn Lys Ile Phe Leu Lys Lys Asp Ala Glu Leu Gly Arg Ser Asn His	
35 40 45	
Leu Pro Thr Trp Asp Lys Pro Glu Asp Ala Ser Trp Leu Pro Gln Ser	
50 55 60	
Cys Leu Gly Gly Asp Ala Val Ala Thr Thr Gly Glu Ile His Glu Glu	
65 70 75 80	
Lys Ala Trp Lys Thr Arg Ala Leu Glu Val Gly Gln Pro Ala Gln Arg	
85 90 95	
Asp Ile Arg Arg Gly Glu Leu Trp Gly Lys Glu His Gly Ala Asp Gln	
100 105 110	
Ala Ile Gln Glu Thr Leu Glu Asp Leu Ser Ser Leu Glu Arg Thr Leu	
115 120 125	
Val Val Ser Glu Ser Ser Pro Leu Gly Gly Asp Cys Gln Glu Val Thr	
130 135 140	
Thr Leu Thr Val Lys Tyr Gln Val Ser Glu Glu Val Pro Ser Gly Thr	
145 150 155 160	
Val Ile Gly Lys Leu Ser Gln Glu Leu Gly Arg Glu Glu Arg Arg Arg	
165 170 175	
Gln Ala Gly Ala Ala Phe Gln Val Leu Gln Leu Pro Gln Ala Leu Pro	

			180					185					190				
Ile	Gln	Val	Asp	Ser	Glu	Glu	Gly	Leu	Leu	Ser	Thr	Gly	Arg	Arg	Leu		
		195					200					205					
Asp	Arg	Glu	Gln	Leu	Cys	Arg	Gln	Trp	Asp	Pro	Cys	Leu	Val	Ser	Phe		
	210					215					220						
Asp	Val	Leu	Ala	Thr	Gly	Asp	Leu	Ala	Leu	Ile	His	Val	Glu	Ile	Gln		
225					230					235					240		
Val	Leu	Asp	Ile	Asn	Asp	His	Gln	Pro	Arg	Phe	Pro	Lys	Gly	Glu	Gln		
			245						250					255			
Glu	Leu	Glu	Ile	Ser	Glu	Ser	Ala	Ser	Leu	Arg	Thr	Arg	Ile	Pro	Leu		
		260					265					270					
Asp	Arg	Ala	Leu	Asp	Pro	Asp	Thr	Gly	Pro	Asn	Thr	Leu	His	Thr	Tyr		
	275						280					285					
Thr	Leu	Ser	Pro	Ser	Glu	His	Phe	Ala	Leu	Asp	Val	Ile	Val	Gly	Pro		
	290				295						300						
Asp	Glu	Thr	Lys	His	Ala	Glu	Leu	Ile	Val	Val	Lys	Glu	Leu	Asp	Arg		
305				310						315					320		
Glu	Ile	His	Ser	Phe	Phe	Asp	Leu	Val	Leu	Thr	Ala	Tyr	Asp	Asn	Gly		
			325						330					335			
Asn	Pro	Pro	Lys	Ser	Gly	Thr	Ser	Leu	Val	Lys	Val	Asn	Val	Leu	Asp		
		340					345					350					
Ser	Asn	Asp	Asn	Ser	Pro	Ala	Phe	Ala	Glu	Ser	Ser	Leu	Ala	Leu	Glu		
	355					360						365					
Ile	Gln	Glu	Asp	Ala	Ala	Pro	Gly	Thr	Leu	Leu	Ile	Lys	Leu	Thr	Ala		
	370				375						380						
Thr	Asp	Pro	Asp	Gln	Gly	Pro	Asn	Gly	Glu	Val	Glu	Phe	Phe	Leu	Ser		
385				390					395						400		
Lys	His	Met	Pro	Pro	Glu	Val	Leu	Asp	Thr	Phe	Ser	Ile	Asp	Ala	Lys		
			405						410					415			
Thr	Gly	Gln	Val	Ile	Leu	Arg	Arg	Pro	Leu	Asp	Tyr	Glu	Lys	Asn	Pro		
		420					425					430					
Ala	Tyr	Glu	Val	Asp	Val	Gln	Ala	Arg	Asp	Leu	Gly	Pro	Asn	Pro	Ile		
	435					440					445						
Pro	Ala	His	Cys	Lys	Val	Leu	Ile	Lys	Val	Leu	Asp	Val	Asn	Asp	Asn		
	450				455						460						
Ile	Pro	Ser	Ile	His	Val	Thr	Trp	Ala	Ser	Gln	Pro	Ser	Leu	Val	Ser		
465				470					475						480		
Glu	Ala	Leu	Pro	Lys	Asp	Ser	Phe	Ile	Ala	Leu	Val	Met	Ala	Asp	Asp		
			485						490					495			
Leu	Asp	Ser	Gly	Asn	Asn	Gly	Leu	Val	His	Cys	Trp	Leu	Ser	Gln	Glu		
		500					505					510					
Leu	Gly	His	Phe	Arg	Leu	Lys	Arg	Thr	Asn	Gly	Asn	Thr	Tyr	Met	Leu		
	515					520					525						
Leu	Thr	Asn	Ala	Thr	Leu	Asp	Arg	Glu	Gln	Trp	Pro	Lys	Tyr	Thr	Leu		
	530				535						540						
Thr	Leu	Leu	Ala	Gln	Asp	Gln	Gly	Leu	Gln	Pro	Leu	Ser	Ala	Lys	Lys		
545				550					555						560		
Gln	Leu	Ser	Ile	Gln	Ile	Ser	Asp	Ile	Asn	Asp	Asn	Ala	Pro	Val	Phe		
			565						570					575			
Glu	Lys	Ser	Arg	Tyr	Glu	Val	Ser	Thr	Arg	Glu	Asn	Asn	Leu	Pro	Ser		
		580						585					590				
Leu	His	Leu	Ile	Thr	Ile	Lys	Ala	His	Asp	Ala	Asp	Leu	Gly	Ile	Asn		
	595					600					605						
Gly	Lys	Val	Ser	Tyr	Arg	Ile	Gln	Asp	Ser	Pro	Val	Ala	His	Leu	Val		
	610				615						620						
Ala	Ile	Asp	Ser	Asn	Thr	Gly	Glu	Val	Thr	Ala	Gln	Arg	Ser	Leu	Asn		
625				630						635					640		
Tyr	Glu	Glu	Met	Ala	Gly	Phe	Glu	Phe	Gln	Val	Ile	Ala	Glu	Asp	Ser		
			645						650					655			
Gly	Gln	Pro	Met	Leu	Ala	Ser	Ser	Val	Ser	Val	Trp	Val	Ser	Leu	Leu		
		660					665						670				
Asp	Ala	Asn	Asp	Asn	Ala	Pro	Glu	Val	Val	Gln	Pro	Val	Leu	Ser	Asp		
	675					680						685					
Gly	Lys	Ala	Ser	Leu	Ser	Val	Leu	Val	Asn	Ala	Ser	Thr	Gly	His	Leu		

690	695	700
Leu Val Pro Ile Glu Thr	Pro Asn Gly Leu Gly	Pro Ala Gly Thr Asp
705	710	715
Thr Pro Pro Leu Ala Thr	His Ser Ser Arg	Pro Phe Leu Leu Thr Thr
725	730	735
Ile Val Ala Arg Asp Ala	Asp Ser Gly Ala Asn	Gly Glu Pro Leu Tyr
740	745	750
Ser Ile Arg Ser Gly Asn	Glu Ala His Leu Phe	Ile Leu Asn Pro His
755	760	765
Thr Gly Gln Leu Phe Val	Asn Val Thr Asn Ala	Ser Ser Leu Ile Gly
770	775	780
Ser Glu Trp Glu Leu Glu	Ile Val Val Glu Asp	Gln Gly Ser Pro Pro
785	790	795
Leu Gln Thr Arg Ala Leu	Leu Arg Val Met Phe	Val Thr Ser Val Asp
805	810	815
His Leu Arg Asp Ser Ala	Arg Lys Pro Gly Ala	Leu Ser Met Ser Met
820	825	830
Leu Thr Val Ile Cys Leu	Ala Val Leu Leu Gly	Ile Phe Gly Leu Ile
835	840	845
Leu Ala Leu Phe Met Ser	Ile Cys Arg Thr Glu	Lys Lys Asp Asn Arg
850	855	860
Ala Tyr Asn Cys Arg Glu	Ala Glu Ser Thr Tyr	Arg Gln Gln Pro Lys
865	870	875
Arg Pro Gln Lys His Ile	Gln Lys Ala Asp Ile	His Leu Val Pro Val
885	890	895
Leu Arg Gly Gln Ala Gly	Glu Pro Cys Glu Val	Gly Gln Ser His Lys
900	905	910
Asp Val Asp Lys Glu Ala	Met Met Glu Ala Gly	Trp Asp Pro Cys Leu
915	920	925
Gln Ala Pro Phe His Leu	Thr Pro Thr Leu Tyr	Arg Thr Leu Arg Asn
930	935	940
Gln Gly Asn Gln Gly Ala	Pro Ala Glu Ser Arg	Glu Val Leu Gln Asp
945	950	955
Thr Val Asn Leu Leu Phe	Asn His Pro Arg Gln	Arg Asn Ala Ser Arg
965	970	975
Glu Asn Leu Asn Leu Pro	Glu Pro Gln Pro Ala	Thr Gly Gln Pro Arg
980	985	990
Ser Arg Pro Leu Lys Val	Ala Gly Ser Pro Thr	Gly Arg Leu Ala Gly
995	1000	1005
Asp Gln Gly Ser Glu Glu	Ala Pro Gln Arg Pro	Pro Ala Ser Ser Ala
1010	1015	1020
Thr Leu Arg Arg Gln Arg	His Leu Asn Gly Lys	Val Ser Pro Glu Lys
1025	1030	1035
Glu Ser Gly Pro Arg Gln	Ile Leu Arg Ser Leu	Val Arg Leu Ser Val
1045	1050	1055
Ala Ala Phe Ala Glu Arg	Asn Pro Val Glu Glu	Leu Thr Val Asp Ser
1060	1065	1070
Pro Pro Val Gln Gln Ile	Ser Gln Leu Leu Ser	Leu Leu His Gln Gly
1075	1080	1085
Gln Phe Gln Pro Lys Pro	Asn His Arg Gly Asn	Lys Tyr Leu Ala Lys
1090	1095	1100
Pro Gly Gly Ser Arg Ser	Ala Ile Pro Asp Thr	Asp Gly Pro Ser Ala
1105	1110	1115
Arg Ala Gly Gly Gln Thr	Asp Pro Glu Gln Glu	Gly Glu Glu Leu Asp
1125	1130	1135
Pro Glu Glu Asp Leu Ser	Val Lys Gln Leu Leu	Glu Glu Glu Leu Ser
1140	1145	1150
Ser Leu Leu Asp Pro Ser	Thr Gly Leu Ala Leu	Asp Arg Leu Ser Ala
1155	1160	1165
Pro Asp Pro Ala Trp Met	Ala Arg Leu Ser Leu	Pro Leu Thr Thr Asn
1170	1175	1180
Tyr Arg Asp Asn Val Ile	Ser Pro Asp Ala Ala	Ala Thr Glu Glu Pro
1185	1190	1195
Arg Thr Phe Gln Thr Phe	Gly Lys Ala Glu Ala	Pro Glu Leu Ser Pro

1205 1210 1215
 Thr Gly Thr Arg Leu Ala Ser Thr Phe Val Ser Glu Met Ser Ser Leu
 1220 1225 1230
 Leu Glu Met Leu Leu Glu Gln Arg Ser Ser Met Pro Val Glu Ala Ala
 1235 1240 1245
 Ser Glu Ala Leu Arg Arg Leu Ser Val Cys Gly Arg Thr Leu Ser Leu
 1250 1255 1260
 Asp Leu Ala Thr Ser Ala Ala Ser Gly Met Lys Val Gln Gly Asp Pro
 1265 1270 1275 1280
 Gly Gly Lys Thr Gly Thr Glu Gly Lys Ser Arg Gly Ser Ser Ser Ser
 1285 1290 1295
 Ser Arg Cys Leu
 1300

<210> 3478
 <211> 536
 <212> PRT
 <213> Homo sapiens

<400> 3478
 Thr Leu Pro Pro Pro Gly Asn Ser Gly Cys His Arg Leu Cys Phe Pro
 1 5 10 15
 Glu Phe Glu Phe Leu Gln Val Thr Lys Met Glu Phe Ser Gly Arg Lys
 20 25 30
 Trp Arg Lys Leu Arg Leu Ala Gly Asp Gln Arg Asn Ala Ser Tyr Pro
 35 40 45
 His Cys Leu Gln Phe Tyr Leu Gln Pro Pro Ser Glu Asn Ile Ser Leu
 50 55 60
 Ile Glu Phe Glu Asn Leu Ala Ile Asp Arg Val Lys Leu Leu Lys Ser
 65 70 75 80
 Val Glu Asn Leu Gly Val Ser Tyr Val Lys Gly Thr Glu Gln Tyr Gln
 85 90 95
 Ser Lys Leu Glu Ser Glu Leu Arg Lys Leu Lys Phe Ser Tyr Arg Glu
 100 105 110
 Asn Leu Glu Asp Glu Tyr Glu Pro Arg Arg Arg Asp His Ile Ser His
 115 120 125
 Phe Ile Leu Arg Leu Ala Tyr Cys Gln Ser Glu Glu Leu Arg Arg Trp
 130 135 140
 Phe Ile Gln Gln Glu Met Asp Leu Leu Arg Phe Arg Phe Ser Ile Leu
 145 150 155 160
 Pro Lys Asp Lys Ile Gln Asp Phe Leu Lys Asp Ser Gln Leu Gln Phe
 165 170 175
 Glu Ala Ile Ser Asp Glu Glu Lys Thr Leu Arg Glu Gln Glu Ile Val
 180 185 190
 Ala Ser Ser Pro Ser Leu Ser Gly Leu Lys Leu Gly Phe Glu Ser Ile
 195 200 205
 Tyr Lys Ile Pro Phe Ala Asp Ala Leu Asp Leu Phe Arg Gly Arg Lys
 210 215 220
 Val Tyr Leu Glu Asp Gly Phe Ala Tyr Val Pro Leu Lys Asp Ile Val
 225 230 235 240
 Ala Ile Ile Leu Asn Glu Phe Arg Ala Lys Leu Ser Lys Ala Leu Ala
 245 250 255
 Leu Thr Ala Arg Ser Leu Pro Ala Val Gln Ser Asp Glu Arg Leu Gln
 260 265 270
 Pro Leu Leu Asn His Leu Ser His Ser Tyr Thr Gly Gln Asp Tyr Ser
 275 280 285
 Thr Gln Gly Asn Val Gly Lys Ile Ser Leu Asp Gln Ile Asp Leu Leu
 290 295 300
 Ser Thr Lys Ser Phe Pro Pro Cys Met Arg Gln Leu His Lys Ala Leu
 305 310 315 320
 Arg Glu Asn His His Leu Arg His Gly Gly Arg Met Gln Tyr Gly Leu

				325					330					335			
Phe	Leu	Lys	Gly	Ile	Gly	Leu	Thr	Leu	Glu	Gln	Ala	Leu	Gln	Phe	Trp		
			340					345					350				
Lys	Gln	Glu	Phe	Ile	Lys	Gly	Lys	Met	Asp	Pro	Asp	Lys	Phe	Asp	Lys		
		355					360					365					
Gly	Tyr	Ser	Tyr	Asn	Ile	Arg	His	Ser	Phe	Gly	Lys	Glu	Gly	Lys	Arg		
	370					375					380						
Thr	Asp	Tyr	Thr	Pro	Phe	Ser	Cys	Leu	Lys	Ile	Ile	Leu	Ser	Asn	Pro		
385					390					395					400		
Pro	Ser	Gln	Gly	Asp	Tyr	His	Gly	Cys	Pro	Phe	Arg	His	Ser	Asp	Pro		
			405					410						415			
Glu	Leu	Leu	Lys	Gln	Lys	Leu	Gln	Ser	Tyr	Lys	Ile	Ser	Pro	Gly	Gly		
		420					425					430					
Ile	Ser	Gln	Ile	Leu	Asp	Leu	Val	Lys	Gly	Thr	His	Tyr	Gln	Val	Ala		
	435					440						445					
Cys	Gln	Lys	Tyr	Phe	Glu	Met	Ile	His	Thr	Val	Asp	Asp	Cys	Gly	Phe		
	450				455					460							
Ser	Leu	Ser	His	Pro	Asn	Gln	Tyr	Phe	Cys	Glu	Ser	Gln	Arg	Ile	Leu		
465				470					475						480		
Asn	Gly	Gly	Lys	Asp	Ile	Lys	Lys	Glu	Pro	Ile	Gln	Pro	Glu	Thr	Pro		
			485					490						495			
Gln	Pro	Lys	Pro	Ser	Val	Gln	Lys	Thr	Lys	Asp	Ala	Ser	Ser	Ala	Leu		
		500					505					510					
Ala	Ser	Leu	Asn	Ser	Ser	Leu	Glu	Met	Asp	Met	Glu	Gly	Leu	Glu	Asp		
	515					520					525						
Tyr	Phe	Ser	Glu	Asp	Ser												
	530				534												

<210> 3479

<211> 190

<212> PRT

<213> Homo sapiens

<400> 3479

Arg	Pro	Glu	Leu	Glu	Leu	Trp	Arg	Leu	Arg	Ser	Arg	Ser	Trp	Arg	Pro		
1				5				10					15				
Leu	Gly	Val	Pro	Arg	Arg	Cys	His	Arg	Arg	Asn	Trp	Lys	Glu	Pro	Val		
		20				25						30					
Arg	Ala	Gln	Pro	Leu	Ser	Val	Thr	Val	Trp	Ala	Pro	Arg	Cys	Gln	Arg		
	35					40				45							
Pro	Gln	Pro	Pro	Ala	Pro	Glu	Pro	Ser	Ser	Pro	Asn	Ala	Ala	Val	Pro		
	50				55					60							
Glu	Ala	Ile	Pro	Thr	Pro	Arg	Ala	Ala	Ala	Ser	Ala	Ala	Leu	Glu	Leu		
65				70				75					80				
Pro	Leu	Gly	Pro	Ala	Pro	Val	Ser	Val	Ala	Pro	Gln	Ala	Glu	Ala	Glu		
		85				90						95					
Ala	Arg	Ser	Thr	Pro	Gly	Pro	Ala	Gly	Ser	Arg	Leu	Gly	Pro	Glu	Thr		
	100					105						110					
Phe	Arg	Gln	Arg	Phe	Arg	Gln	Phe	Arg	Tyr	Gln	Asp	Ala	Ala	Gly	Pro		
	115					120				125							
Arg	Glu	Ala	Phe	Arg	Gln	Leu	Arg	Glu	Leu	Ser	Pro	Arg	Gln	Trp	Leu		
	130				135					140							
Arg	Pro	Asp	Ile	Arg	Thr	Lys	Glu	Gln	Ile	Val	Glu	Met	Leu	Val	Gln		
145				150						155					160		
Glu	Gln	Leu	Leu	Ala	Ile	Leu	Pro	Glu	Ala	Ala	Arg	Ala	Arg	Arg	Ile		
		165				170							175				
Arg	Arg	Arg	Thr	Asp	Val	Arg	Ile	Thr	Gly								
		180						185	186								

<210> 3480
 <211> 704
 <212> PRT
 <213> Homo sapiens

<400> 3480
 Arg Arg Gly Ser Arg Ser Arg Gly Pro Phe Ala Glu Pro Ala Ala Pro
 1 5 10 15
 Gly Gly Leu Cys Ser Ser Ser Glu Glu Lys Thr Glu Glu Gly Gly Met
 20 25 30
 Ala Val Gly Leu Cys Lys Ala Met Ser Gln Gly Leu Val Thr Phe Arg
 35 40 45
 Asp Val Ala Leu Asp Phe Ser Gln Glu Glu Trp Glu Trp Leu Lys Pro
 50 55 60
 Ser Gln Lys Asp Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Arg Asn
 65 70 75 80
 Leu Val Trp Leu Gly Leu Ser Ile Ser Lys Pro Asn Met Ile Ser Leu
 85 90 95
 Leu Glu Gln Gly Lys Glu Pro Trp Met Val Glu Arg Lys Met Ser Gln
 100 105 110
 Gly His Cys Ala Asp Trp Glu Ser Trp Trp Glu Ile Glu Glu Leu Ser
 115 120 125
 Pro Lys Trp Phe Ile Asp Glu Asp Glu Ile Ser Gln Glu Met Val Met
 130 135 140
 Glu Arg Leu Ala Ser His Gly Leu Glu Cys Ser Ser Phe Arg Glu Ala
 145 150 155 160
 Trp Lys Tyr Lys Gly Glu Phe Glu Leu His Gln Gly Asn Ala Glu Arg
 165 170 175
 His Phe Met Gln Val Thr Ala Val Lys Glu Ile Ser Thr Gly Lys Arg
 180 185 190
 Asp Asn Glu Phe Ser Asn Ile Trp Glu Lys His Thr Pro Glu Ile Ser
 195 200 205
 Ile Phe Asn Thr Thr Glu Ser Pro Thr Ile Gln Gln Val His Lys Phe
 210 215 220
 Asp Ile Tyr Asp Lys Leu Phe Pro Gln Asn Ser Val Ile Ile Glu Tyr
 225 230 235 240
 Lys Arg Leu His Ala Glu Lys Glu Ser Leu Ile Gly Asn Glu Cys Glu
 245 250 255
 Glu Phe Asn Gln Ser Thr Tyr Leu Ser Lys Asp Ile Gly Ile Pro Pro
 260 265 270
 Gly Glu Lys Pro Tyr Glu Ser His Asp Phe Ser Lys Leu Leu Ser Phe
 275 280 285
 His Ser Leu Phe Thr Gln His Gln Thr Thr His Phe Gly Lys Leu Pro
 290 295 300
 His Gly Tyr Asp Glu Cys Gly Asp Ala Phe Ser Cys Tyr Ser Phe Phe
 305 310 315 320
 Thr Gln Pro Gln Arg Ile His Ser Gly Glu Lys Pro Tyr Ala Cys Asn
 325 330 335
 Asp Cys Gly Lys Ala Phe Ser His Asp Phe Phe Leu Ser Glu His Gln
 340 345 350
 Arg Thr His Ile Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Asn Lys
 355 360 365
 Ala Phe Arg Gln Ser Ala His Leu Ala Gln His Gln Arg Ile His Thr
 370 375 380
 Gly Glu Lys Pro Phe Ala Cys Asn Glu Cys Gly Lys Ala Phe Ser Arg
 385 390 395 400
 Tyr Ala Phe Leu Val Glu His Gln Arg Ile His Thr Gly Glu Lys Pro
 405 410 415
 Tyr Glu Cys Lys Glu Cys Asn Lys Ala Phe Arg Gln Ser Ala His Leu
 420 425 430
 Asn Gln His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Asn
 435 440 445
 Gln Cys Gly Lys Ala Phe Ser Arg Arg Ile Ala Leu Thr Leu His Gln

450	455	460
Arg Ile His Thr Gly Glu Lys Pro Phe Lys Cys Ser Glu Cys Gly Lys		
465	470	475
Thr Phe Gly Tyr Arg Ser His Leu Asn Gln His Gln Arg Ile His Thr		480
	485	490
Gly Glu Lys Pro Tyr Glu Cys Ile Lys Cys Gly Lys Phe Phe Arg Thr		495
	500	505
Asp Ser Gln Leu Asn Arg His His Arg Ile His Thr Gly Glu Arg Pro		510
	515	520
Phe Glu Cys Ser Lys Cys Gly Lys Ala Phe Ser Asp Ala Leu Val Leu		525
	530	535
Ile His His Lys Arg Ser His Ala Gly Glu Lys Pro Tyr Glu Cys Asn		540
545	550	555
Lys Cys Gly Lys Ala Phe Ser Cys Gly Ser Tyr Leu Asn Gln His Gln		560
	565	570
Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Ser Glu Cys Gly Lys		575
	580	585
Ala Phe His Gln Ile Leu Ser Leu Arg Leu His Gln Arg Ile His Ala		590
	595	600
Gly Glu Lys Pro Tyr Lys Cys Asn Glu Ser Gln Arg Val Arg Arg Ser		605
	610	615
Glu Leu Ala Val Ser Arg Gly Leu Thr Thr Lys Pro Ala Asp Thr Gly		620
625	630	635
Pro Asp Ser Thr Leu Asn Ala Ala Lys Val Ala Glu Pro Ala Arg Ala		640
	645	650
Gly Thr Glu Ala Ala Leu Arg Pro Ala Leu Ser Val Ala Glu Ser Ala		655
	660	665
Thr Ser Leu Gly Pro Leu His Gln Gly Arg Arg Phe Pro Glu Ala Pro		670
	675	680
Ala Ala His Pro Gly Gly Thr Gly Phe Thr Val Cys Ala Ser		685
690	695	700
		702

<210> 3481

<211> 507

<212> PRT

<213> Homo sapiens

<400> 3481

Ala Ser Arg His Gly Met Thr Pro Gly Ala Leu Leu Met Leu Leu Gly	
1	5
Ala Leu Gly Pro Pro Leu Ala Pro Gly Val Arg Gly Ser Glu Ala Glu	10
	15
	20
Gly Arg Leu Arg Glu Lys Leu Phe Ser Gly Tyr Asp Ser Ser Val Arg	25
	30
	35
Pro Ala Arg Glu Val Gly Asp Arg Val Arg Val Ser Val Gly Leu Ile	40
	45
	50
Leu Ala Gln Leu Ile Ser Leu Asn Glu Lys Asp Glu Glu Met Ser Thr	55
	60
	65
Lys Val Tyr Leu Asp Leu Glu Trp Thr Asp Tyr Arg Leu Ser Trp Asp	70
	75
	80
	85
Pro Ala Glu His Asp Gly Ile Asp Ser Leu Arg Ile Thr Ala Glu Ser	90
	95
	100
Val Trp Leu Pro Asp Val Val Leu Leu Asn Asn Asn Asp Gly Asn Phe	105
	110
	115
Asp Val Ala Leu Asp Ile Ser Val Val Val Ser Ser Asp Gly Ser Val	120
	125
	130
Arg Trp Gln Pro Pro Gly Ile Tyr Arg Ser Ser Cys Ser Ile Gln Val	135
	140
	145
Thr Tyr Phe Pro Phe Asp Trp Gln Asn Cys Thr Met Val Phe Ser Ser	150
	155
	160
	165
Tyr Ser Tyr Asp Ser Ser Glu Val Ser Leu Gln Thr Gly Leu Gly Pro	170
	175


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<210> 3482
<211> 368
<212> PRT
<213> Homo sapiens
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5201

Asn	Pro	Arg	100	Tyr	Arg	Val	Arg	Val	105	Tyr	Val	Gly	Phe	Thr	Val	110	Asn	Thr
		115						120						125				
Ala	Arg	Arg	Val	Gln	Gln	His	Asn	Gly	Gly	Arg	Lys	Lys	Gly	Gly	Ala			
	130					135					140							
Gly	Arg	Thr	Ser	Gly	Arg	Gly	Pro	Trp	Glu	Met	Val	Leu	Val	Val	His			
145				150					155						160			
Gly	Phe	Pro	Ser	Ser	Val	Ala	Ala	Leu	Arg	Phe	Glu	Trp	Ala	Trp	Gln			
			165					170							175			
His	Pro	His	Ala	Ser	Arg	Arg	Leu	Ala	His	Val	Gly	Pro	Arg	Leu	Arg			
			180					185						190				
Gly	Glu	Thr	Ala	Phe	Ala	Phe	His	Leu	Arg	Val	Leu	Ala	His	Met	Leu			
	195						200							205				
Arg	Ala	Pro	Pro	Trp	Ala	Arg	Leu	Pro	Leu	Thr	Leu	Arg	Trp	Val	Arg			
	210					215					220							
Pro	Asp	Leu	Arg	Gln	Asp	Leu	Cys	Leu	Pro	Pro	Pro	Pro	His	Val	Leu			
225				230					235						240			
Leu	Ala	Phe	Gly	Pro	Pro	Pro	Ala	Gln	Val	Pro	Arg	Pro	Gln	Arg	Arg			
			245					250						255				
Arg	Ala	Gly	Pro	Phe	Asp	Asp	Ala	Glu	Pro	Glu	Pro	Asp	Gln	Gly	Asp			
		260					265						270					
Pro	Gly	Ala	Cys	Cys	Ser	Leu	Cys	Ala	Gln	Thr	Ile	Gln	Asp	Glu	Glu			
	275						280						285					
Gly	Pro	Leu	Cys	Cys	Pro	His	Pro	Gly	Cys	Leu	Leu	Arg	Ala	His	Val			
	290					295					300							
Ile	Cys	Leu	Ala	Glu	Glu	Phe	Leu	Gln	Glu	Glu	Pro	Gly	Gln	Leu	Leu			
305				310					315						320			
Pro	Leu	Glu	Gly	Gln	Cys	Pro	Cys	Cys	Glu	Lys	Ser	Leu	Leu	Trp	Gly			
			325					330						335				
Asp	Leu	Ile	Trp	Leu	Cys	Gln	Met	Asp	Thr	Glu	Lys	Glu	Val	Glu	Asp			
		340					345						350					
Ser	Glu	Leu	Glu	Glu	Ala	His	Trp	Thr	Asp	Leu	Leu	Glu	Thr					
	355					360						365	366					

<210> 3483

<211> 1153

<212> PRT

<213> Homo sapiens

<400> 3483

Trp	Arg	Pro	Trp	Pro	Cys	Ile	Asp	Thr	Ser	Trp	Asn	Leu	Gln	Val	Ala			
1				5				10						15				
Ala	Arg	Thr	Leu	Arg	Val	Ser	Ser	Ala	Gln	Cys	Gly	Leu	Val	Pro	Thr			
		20					25						30					
Met	Ala	Arg	Val	Glu	Ser	Pro	Val	Pro	Ala	Ala	Arg	Ala	Ser	Leu	Thr			
	35					40					45							
Gly	Ser	Cys	Val	Leu	Gly	Gln	Ala	Met	Pro	Leu	Arg	Gly	Gly	Ala	Gly			
	50					55					60							
Pro	Ser	Pro	Ala	Ser	His	Gly	Pro	Thr	His	Gly	Pro	Ser	Asp	Pro	Arg			
65				70				75					80					
Thr	Cys	Leu	Pro	Gly	Arg	Gly	Ala	Gly	Gly	Met	Arg	Pro	His	Gly	Arg			
			85					90					95					
Gly	Ala	Leu	Gly	Cys	Cys	Gly	Leu	Cys	Ser	Phe	Tyr	Thr	Cys	His	Gly			
		100					105						110					
Ala	Ala	Gly	Asp	Glu	Ile	Met	His	Gln	Asp	Ile	Val	Pro	Leu	Cys	Ala			
	115						120						125					
Ala	Asp	Ile	Gln	Asp	Gln	Leu	Lys	Lys	Arg	Phe	Ala	Tyr	Leu	Ser	Gly			
	130					135					140							
Gly	Arg	Gly	Gln	Asp	Gly	Ser	Pro	Val	Ile	Thr	Phe	Pro	Asp	Tyr	Pro			
145				150					155						160			
Ala	Phe	Ser	Glu	Ile	Pro	Asp	Lys	Glu	Phe	Gln	Asn	Val	Met	Thr	Tyr			

				165					170					175		
Leu	Thr	Ser	Ile	Pro	Ser	Leu	Gln	Asp	Ala	Gly	Ile	Gly	Phe	Ile	Leu	
			180					185					190			
Val	Ile	Asp	Arg	Arg	Arg	Asp	Lys	Trp	Thr	Ser	Val	Lys	Ala	Ser	Val	
		195					200					205				
Leu	Arg	Ile	Ala	Ala	Ser	Phe	Pro	Ala	Asn	Leu	Gln	Leu	Val	Leu	Val	
	210					215					220					
Leu	Arg	Pro	Thr	Gly	Phe	Phe	Gln	Arg	Thr	Leu	Ser	Asp	Ile	Ala	Phe	
225				230						235					240	
Lys	Phe	Asn	Arg	Asp	Asp	Phe	Lys	Met	Lys	Val	Pro	Val	Ile	Met	Leu	
			245						250					255		
Ser	Ser	Val	Pro	Asp	Leu	His	Gly	Tyr	Ile	Asp	Lys	Ser	Gln	Leu	Thr	
			260					265					270			
Glu	Asp	Leu	Gly	Gly	Thr	Leu	Asp	Tyr	Cys	His	Ser	Arg	Trp	Leu	Cys	
		275					280					285				
Gln	Arg	Thr	Ala	Ile	Glu	Ser	Phe	Ala	Leu	Met	Val	Lys	Gln	Thr	Ala	
	290					295					300					
Gln	Met	Leu	Gln	Ser	Phe	Gly	Thr	Glu	Leu	Ala	Glu	Thr	Glu	Leu	Pro	
305				310						315					320	
Asn	Asp	Val	Gln	Ser	Thr	Ser	Ser	Val	Leu	Cys	Ala	His	Thr	Glu	Lys	
			325						330					335		
Lys	Asp	Lys	Ala	Lys	Glu	Asp	Leu	Arg	Leu	Ala	Leu	Lys	Glu	Gly	His	
			340				345						350			
Ser	Val	Leu	Glu	Ser	Leu	Arg	Glu	Leu	Gln	Ala	Glu	Gly	Ser	Glu	Pro	
		355					360					365				
Ser	Val	Asn	Gln	Asp	Gln	Leu	Asp	Asn	Gln	Ala	Thr	Val	Gln	Arg	Leu	
	370					375					380					
Leu	Ala	Gln	Leu	Asn	Glu	Thr	Glu	Ala	Ala	Phe	Asp	Glu	Phe	Trp	Ala	
385				390						395					400	
Lys	His	Gln	Gln	Lys	Leu	Glu	Gln	Cys	Leu	Gln	Leu	Arg	His	Phe	Glu	
			405						410					415		
Gln	Gly	Phe	Arg	Glu	Val	Lys	Ala	Ile	Leu	Asp	Ala	Ala	Ser	Gln	Lys	
			420					425					430			
Ile	Ala	Thr	Phe	Thr	Asp	Ile	Gly	Asn	Ser	Leu	Ala	His	Val	Glu	His	
		435					440					445				
Leu	Leu	Arg	Asp	Leu	Ala	Asn	Phe	Gln	Glu	Lys	Ser	Gly	Val	Phe	Val	
	450					455					460					
Glu	Arg	Ala	Arg	Ala	Leu	Ser	Leu	Thr	Ala	Ser	Ser	Phe	Ile	Gly	Asn	
465				470						475					480	
Lys	His	Tyr	Ala	Val	Asp	Ser	Ile	Arg	Pro	Lys	Cys	Gln	Glu	Leu	Arg	
			485						490					495		
His	Leu	Cys	Asp	Gln	Phe	Ser	Ala	Glu	Ile	Ala	Arg	Arg	Arg	Gly	Leu	
			500					505					510			
Leu	Ser	Lys	Ser	Leu	Glu	Leu	His	Arg	Arg	Leu	Glu	Thr	Ser	Met	Lys	
		515					520					525				
Trp	Cys	Asp	Glu	Gly	Ile	Tyr	Leu	Leu	Ala	Ser	Gln	Pro	Val	Asp	Lys	
	530					535					540					
Cys	Gln	Ser	Gln	Asp	Gly	Ala	Glu	Ala	Ala	Leu	Gln	Glu	Ile	Glu	Lys	
545				550						555					560	
Phe	Leu	Glu	Thr	Gly	Ala	Glu	Asn	Lys	Ile	Gln	Glu	Leu	Asn	Ala	Ile	
			565						570					575		
Tyr	Lys	Glu	Tyr	Glu	Ser	Ile	Leu	Asn	Gln	Asp	Leu	Met	Glu	His	Val	
			580					585					590			
Arg	Lys	Val	Phe	Gln	Lys	Gln	Ala	Ser	Met	Glu	Glu	Val	Phe	His	Arg	
		595					600					605				
Arg	Gln	Ala	Ser	Leu	Lys	Lys	Leu	Ala	Ala	Arg	Gln	Thr	Arg	Pro	Val	
	610					615					620					
Gln	Pro	Val	Ala	Pro	Arg	Pro	Glu	Ala	Leu	Ala	Lys	Ser	Pro	Cys	Pro	
625				630						635					640	
Ser	Pro	Gly	Ile	Arg	Arg	Gly	Ser	Glu	Asn	Ser	Ser	Ser	Glu	Gly	Gly	
			645						650					655		
Ala	Leu	Arg	Arg	Gly	Pro	Tyr	Arg	Arg	Ala	Lys	Ser	Glu	Met	Ser	Glu	
			660					665					670			
Ser	Arg	Gln	Gly	Arg	Gly	Ser	Ala	Gly	Glu	Glu	Glu	Glu	Ser	Leu	Ala	

5204

<210> 3484
 <211> 1968
 <212> PRT
 <213> Homo sapiens

<400> 3484

Val	Thr	Met	Ala	Gln	Gln	Ala	Ala	Asp	Lys	Tyr	Leu	Tyr	Val	Asp	Lys
1				5					10					15	
Asn	Phe	Ile	Asn	Asn	Pro	Leu	Ala	Gln	Ala	Asp	Trp	Ala	Ala	Lys	Lys
			20					25					30		
Leu	Val	Trp	Val	Pro	Ser	Asp	Lys	Ser	Gly	Phe	Glu	Pro	Ala	Ser	Leu
		35					40					45			
Lys	Glu	Glu	Val	Gly	Glu	Glu	Ala	Ile	Val	Glu	Leu	Val	Glu	Asn	Gly
	50					55					60				
Lys	Lys	Val	Lys	Val	Asn	Lys	Asp	Asp	Ile	Gln	Lys	Met	Asn	Pro	Pro
65					70				75					80	
Lys	Phe	Ser	Lys	Val	Glu	Asp	Met	Ala	Glu	Leu	Thr	Cys	Leu	Asn	Glu
				85					90					95	
Ala	Ser	Val	Leu	His	Asn	Leu	Lys	Glu	Arg	Tyr	Tyr	Ser	Gly	Leu	Ile
			100					105					110		
Tyr	Thr	Tyr	Ser	Gly	Leu	Phe	Cys	Val	Val	Ile	Asn	Pro	Tyr	Lys	Asn
		115				120						125			
Leu	Pro	Ile	Tyr	Ser	Glu	Glu	Ile	Val	Glu	Met	Tyr	Lys	Gly	Lys	Lys
	130					135						140			
Arg	His	Glu	Met	Pro	Pro	His	Ile	Tyr	Ala	Ile	Thr	Asp	Thr	Ala	Tyr
145					150					155					160
Arg	Ser	Met	Met	Gln	Asp	Arg	Glu	Asp	Gln	Ser	Ile	Leu	Cys	Thr	Gly
				165					170					175	
Glu	Ser	Gly	Ala	Gly	Lys	Thr	Glu	Asn	Thr	Lys	Lys	Val	Ile	Gln	Tyr
			180					185					190		
Leu	Ala	Tyr	Val	Ala	Ser	Ser	His	Lys	Ser	Lys	Lys	Asp	Gln	Gly	Glu
		195					200					205			
Leu	Glu	Arg	Gln	Leu	Leu	Gln	Ala	Asn	Pro	Ile	Leu	Glu	Ala	Phe	Gly
	210					215					220				
Asn	Ala	Lys	Thr	Val	Lys	Asn	Asp	Asn	Ser	Ser	Arg	Phe	Gly	Lys	Phe
225					230				235						240
Ile	Arg	Ile	Asn	Phe	Asp	Val	Asn	Gly	Tyr	Ile	Val	Gly	Ala	Asn	Ile
			245						250					255	
Glu	Thr	Tyr	Leu	Leu	Glu	Lys	Ser	Arg	Ala	Ile	Arg	Gln	Ala	Lys	Glu
		260						265					270		
Glu	Arg	Thr	Phe	His	Ile	Phe	Tyr	Tyr	Leu	Leu	Ser	Gly	Ala	Gly	Glu
		275					280					285			
His	Leu	Lys	Thr	Asp	Leu	Leu	Leu	Glu	Pro	Tyr	Asn	Lys	Tyr	Arg	Phe
	290					295					300				
Leu	Ser	Asn	Gly	His	Val	Thr	Ile	Pro	Gly	Gln	Gln	Asp	Lys	Asp	Met
305					310					315					320
Phe	Gln	Glu	Thr	Met	Glu	Ala	Met	Arg	Ile	Met	Gly	Ile	Pro	Glu	Glu
				325					330					335	
Glu	Gln	Met	Gly	Leu	Leu	Arg	Val	Ile	Ser	Gly	Val	Leu	Gln	Leu	Gly
			340					345					350		
Asn	Ile	Val	Phe	Lys	Lys	Glu	Arg	Asn	Thr	Asp	Gln	Ala	Ser	Met	Pro
		355					360					365			
Asp	Asn	Thr	Ala	Ala	Gln	Lys	Val	Ser	His	Leu	Leu	Gly	Ile	Asn	Val
	370					375						380			
Thr	Asp	Phe	Thr	Arg	Gly	Ile	Leu	Thr	Pro	Arg	Ile	Lys	Val	Gly	Arg
385					390					395					400
Asp	Tyr	Val	Gln	Lys	Ala	Gln	Thr	Lys	Glu	Gln	Ala	Asp	Phe	Ala	Ile
			405						410					415	
Glu	Ala	Leu	Ala	Lys	Ala	Thr	Tyr	Glu	Arg	Met	Phe	Arg	Trp	Leu	Val
		420						425					430		
Leu	Arg	Ile	Asn	Lys	Ala	Leu	Asp	Lys	Thr	Lys	Arg	Gln	Gly	Ala	Ser
	435						440					445			
Phe	Ile	Gly	Ile	Leu	Asp	Ile	Ala	Gly	Phe	Glu	Ile	Phe	Asp	Leu	Asn

450	455	460
Ser Phe Glu Gln Leu Cys Ile Asn Tyr Thr Asn Glu Lys Leu Gln Gln		
465	470	475
Leu Phe Asn His Thr Met Phe Ile Leu Glu Gln Glu Glu Tyr Gln Arg		480
	485	490
Glu Gly Ile Glu Trp Asn Phe Ile Asp Phe Gly Leu Asp Leu Gln Pro		495
	500	505
Cys Ile Asp Leu Ile Glu Lys Pro Ala Gly Pro Pro Gly Ile Leu Ala		510
	515	520
Leu Leu Asp Glu Glu Cys Trp Phe Pro Lys Ala Thr Asp Lys Ser Phe		525
	530	535
Val Glu Lys Val Met Gln Glu Gln Gly Thr His Pro Lys Phe Gln Lys		540
545	550	555
Pro Lys Gln Leu Lys Asp Lys Ala Asp Phe Cys Ile Ile His Tyr Ala		560
	565	570
Gly Lys Val Asp Tyr Lys Ala Asp Glu Trp Leu Met Lys Asn Met Asp		575
	580	585
Pro Leu Asn Asp Asn Ile Ala Thr Leu Leu His Gln Ser Ser Asp Lys		590
	595	600
Phe Val Ser Glu Leu Trp Lys Asp Val Asp Arg Ile Ile Gly Leu Asp		605
	610	615
Gln Val Ala Gly Met Ser Glu Thr Ala Leu Pro Gly Ala Phe Lys Thr		620
625	630	635
Arg Lys Gly Met Phe Arg Thr Val Gly Gln Leu Tyr Lys Glu Gln Leu		640
	645	650
Ala Lys Leu Met Ala Thr Leu Arg Asn Thr Asn Pro Asn Phe Val Arg		655
	660	665
Cys Ile Ile Pro Asn His Glu Lys Lys Ala Gly Lys Leu Asp Pro His		670
	675	680
Leu Val Leu Asp Gln Leu Arg Cys Asn Gly Val Leu Glu Gly Ile Arg		685
	690	695
Ile Cys Arg Gln Gly Phe Pro Asn Arg Val Val Phe Gln Glu Phe Arg		700
705	710	715
Gln Arg Tyr Glu Ile Leu Thr Pro Asn Ser Ile Pro Lys Gly Phe Met		720
	725	730
Asp Gly Lys Gln Ala Cys Val Leu Met Ile Lys Ala Leu Glu Leu Asp		735
	740	745
Ser Asn Leu Tyr Arg Ile Gly Gln Ser Lys Val Phe Phe Arg Ala Gly		750
	755	760
Val Leu Ala His Leu Glu Glu Arg Asp Leu Lys Ile Thr Asp Val		765
	770	775
Ile Ile Gly Phe Gln Ala Cys Cys Arg Gly Tyr Leu Ala Arg Lys Ala		780
785	790	795
Phe Ala Lys Arg Gln Gln Gln Leu Thr Ala Met Lys Val Leu Gln Arg		800
	805	810
Asn Cys Ala Ala Tyr Leu Lys Leu Arg Asn Trp Gln Trp Trp Arg Leu		815
	820	825
Phe Thr Lys Val Lys Pro Leu Leu Gln Val Ser Arg Gln Glu Glu Glu		830
	835	840
Met Met Ala Lys Glu Glu Glu Leu Val Lys Val Arg Glu Lys Gln Leu		845
	850	855
Ala Ala Glu Asn Arg Leu Thr Glu Met Glu Thr Leu Gln Ser Gln Leu		860
865	870	875
Met Ala Glu Lys Leu Gln Leu Gln Glu Gln Leu Gln Ala Glu Thr Glu		880
	885	890
Leu Cys Ala Glu Ala Glu Glu Leu Arg Ala Arg Leu Thr Ala Lys Lys		895
	900	905
Gln Glu Leu Glu Glu Ile Cys His Asp Leu Glu Ala Arg Val Glu Glu		910
	915	920
Glu Glu Glu Arg Cys Gln His Leu Gln Ala Glu Lys Lys Lys Met Gln		925
	930	935
Gln Asn Ile Gln Glu Leu Glu Glu Gln Leu Glu Glu Glu Glu Ser Ala		940
945	950	955
Arg Gln Lys Leu Gln Leu Glu Lys Val Thr Thr Glu Ala Lys Leu Lys		960

	965		970		975									
Lys	Leu	Glu	Glu	Gln	Ile	Ile	Leu	Glu	Asp	Gln	Asn	Cys	Lys	Leu
	980		985		990									
Ala	Lys	Glu	Lys	Lys	Leu	Leu	Glu	Asp	Arg	Ile	Ala	Glu	Phe	Thr
	995		1000		1005									
Asn	Leu	Thr	Glu	Glu	Glu	Glu	Lys	Ser	Lys	Ser	Leu	Ala	Lys	Leu
	1010		1015		1020									
Asn	Lys	His	Glu	Ala	Met	Ile	Thr	Asp	Leu	Glu	Arg	Leu	Arg	Arg
1025			1030		1035								1040	
Glu	Glu	Lys	Gln	Arg	Gln	Glu	Leu	Glu	Lys	Thr	Arg	Arg	Lys	Leu
	1045		1050		1055									
Gly	Asp	Ser	Thr	Asp	Leu	Ser	Asp	Gln	Ile	Ala	Glu	Leu	Gln	Ala
	1060		1065		1070									
Ile	Ala	Glu	Leu	Lys	Met	Gln	Leu	Ala	Lys	Lys	Glu	Glu	Glu	Leu
	1075		1080		1085									
Ala	Ala	Leu	Ala	Arg	Val	Glu	Glu	Glu	Ala	Ala	Gln	Lys	Asn	Met
	1090		1095		1100									
Leu	Lys	Lys	Ile	Arg	Glu	Leu	Glu	Ser	Gln	Ile	Ser	Glu	Leu	Gln
1105			1110		1115									1120
Asp	Leu	Lys	Cys	Glu	Arg	Ala	Ser	Arg	Asn	Lys	Ala	Glu	Lys	Gln
	1125		1130		1135									
Arg	Asp	Leu	Gly	Glu	Glu	Leu	Glu	Ala	Leu	Lys	Thr	Glu	Leu	Glu
	1140		1145		1150									
Thr	Leu	Asp	Ser	Thr	Ala	Ala	Gln	Gln	Glu	Leu	Arg	Ser	Lys	Arg
	1155		1160		1165									
Gln	Glu	Val	Asn	Ile	Leu	Lys	Lys	Thr	Leu	Glu	Glu	Ala	Lys	Thr
	1170		1175		1180									
His	Glu	Ala	Gln	Ile	Gln	Glu	Met	Arg	Gln	Lys	His	Ser	Gln	Ala
1185			1190		1195									1200
Glu	Glu	Leu	Ala	Glu	Gln	Leu	Glu	Gln	Thr	Lys	Arg	Val	Lys	Ala
	1205		1210		1215									
Leu	Glu	Lys	Ala	Lys	Gln	Thr	Leu	Glu	Asn	Glu	Arg	Gly	Glu	Leu
	1220		1225		1230									
Asn	Glu	Val	Lys	Val	Leu	Leu	Gln	Gly	Lys	Gly	Asp	Ser	Glu	His
	1235		1240		1245									
Arg	Lys	Lys	Val	Glu	Ala	Gln	Leu	Gln	Glu	Leu	Gln	Val	Lys	Phe
	1250		1255		1260									
Glu	Gly	Glu	Arg	Val	Arg	Thr	Glu	Leu	Ala	Asp	Lys	Val	Thr	Lys
1265			1270		1275									1280
Gln	Val	Glu	Leu	Asp	Asn	Val	Thr	Gly	Leu	Leu	Ser	Gln	Ser	Asp
	1285		1290		1295									
Lys	Ser	Ser	Lys	Leu	Thr	Lys	Asp	Phe	Ser	Ala	Leu	Glu	Ser	Gln
	1300		1305		1310									
Gln	Asp	Thr	Gln	Glu	Leu	Leu	Gln	Glu	Glu	Asn	Arg	Gln	Lys	Leu
	1315		1320		1325									
Leu	Ser	Thr	Lys	Leu	Lys	Gln	Val	Glu	Asp	Glu	Lys	Asn	Ser	Phe
	1330		1335		1340									
Glu	Gln	Leu	Glu	Glu	Glu	Glu	Glu	Glu	Ala	Lys	His	Asn	Leu	Glu
1345			1350		1355									1360
Gln	Ile	Ala	Thr	Leu	His	Ala	Gln	Val	Ala	Asp	Met	Lys	Lys	Lys
	1365		1370		1375									
Glu	Asp	Ser	Val	Gly	Cys	Leu	Glu	Thr	Ala	Glu	Glu	Val	Lys	Arg
	1380		1385		1390									
Leu	Gln	Lys	Asp	Leu	Glu	Gly	Leu	Ser	Gln	Arg	His	Glu	Glu	Lys
	1395		1400		1405									
Ala	Ala	Tyr	Asp	Lys	Leu	Glu	Lys	Thr	Lys	Thr	Arg	Leu	Gln	Gln
	1410		1415		1420									
Leu	Asp	Asp	Leu	Leu	Val	Asp	Leu	Asp	His	Gln	Arg	Gln	Ser	Ala
1425			1430		1435									1440
Asn	Leu	Glu	Lys	Lys	Gln	Lys	Lys	Phe	Asp	Gln	Leu	Leu	Ala	Glu
	1445		1450		1455									
Lys	Thr	Ile	Ser	Ala	Lys	Tyr	Ala	Glu	Glu	Arg	Asp	Arg	Ala	Glu
	1460		1465		1470									
Glu	Ala	Arg	Glu	Lys	Glu	Thr	Lys	Ala	Leu	Ser	Leu	Ala	Arg	Ala

1475	1480	1485
Glu Glu Ala Met Glu Gln Lys Ala Glu Leu Glu Arg Leu Asn Lys Gln		
1490	1495	1500
Phe Arg Thr Glu Met Glu Asp Leu Met Ser Ser Lys Asp Asp Val Gly		
1505	1510	1515
Lys Ser Val His Glu Leu Glu Lys Ser Lys Arg Ala Ile Glu Gln Gln		1520
1525	1530	1535
Val Glu Glu Met Lys Thr Gln Leu Glu Glu Leu Glu Asp Glu Leu Gln		
1540	1545	1550
Ala Thr Glu Asp Ala Lys Leu Arg Leu Glu Val Asn Leu Gln Ala Met		
1555	1560	1565
Lys Ala Gln Phe Glu Arg Asp Leu Gln Gly Arg Asp Glu Gln Ser Glu		
1570	1575	1580
Glu Lys Lys Lys Gln Leu Val Arg Gln Val Arg Glu Met Glu Ala Glu		
1585	1590	1595
Leu Glu Asp Glu Arg Lys Gln Arg Ser Met Ala Val Ala Ala Arg Lys		1600
1605	1610	1615
Lys Leu Glu Met Asp Leu Lys Asp Leu Glu Ala His Ile Asp Ser Ala		
1620	1625	1630
Asn Lys Asn Arg Asp Glu Ala Ile Lys Gln Leu Arg Lys Leu Gln Ala		
1635	1640	1645
Gln Met Lys Asp Cys Met Arg Glu Leu Asp Asp Thr Arg Ala Ser Arg		
1650	1655	1660
Glu Glu Ile Leu Ala Gln Ala Lys Glu Asn Glu Lys Lys Leu Lys Ser		
1665	1670	1675
Met Glu Ala Glu Met Ile Gln Leu Gln Glu Glu Leu Ala Ala Ala Glu		1680
1685	1690	1695
Arg Ala Lys Arg Gln Ala Gln Gln Glu Arg Asp Glu Leu Ala Asp Glu		
1700	1705	1710
Ile Ala Asn Ser Ser Gly Lys Gly Ala Leu Ala Leu Glu Glu Lys Arg		
1715	1720	1725
Arg Leu Glu Ala Arg Ile Ala Gln Leu Glu Glu Glu Leu Glu Glu Glu		
1730	1735	1740
Gln Gly Asn Thr Glu Leu Ile Asn Asp Arg Leu Lys Lys Ala Asn Leu		
1745	1750	1755
Gln Ile Asp Gln Ile Asn Thr Asp Leu Asn Leu Glu Arg Ser His Ala		1760
1765	1770	1775
Gln Lys Asn Glu Asn Ala Arg Gln Gln Leu Glu Arg Gln Asn Lys Glu		
1780	1785	1790
Leu Lys Val Lys Leu Gln Glu Met Glu Gly Thr Val Lys Ser Lys Tyr		
1795	1800	1805
Lys Ala Ser Ile Thr Ala Leu Glu Ala Lys Ile Ala Gln Leu Glu Glu		
1810	1815	1820
Gln Leu Asp Asn Glu Thr Lys Glu Arg Gln Ala Ala Cys Lys Gln Val		
1825	1830	1835
Arg Arg Thr Glu Lys Lys Leu Lys Asp Val Leu Leu Gln Val Asp Asp		1840
1845	1850	1855
Glu Arg Arg Asn Ala Glu Gln Tyr Lys Asp Gln Ala Asp Lys Ala Ser		
1860	1865	1870
Thr Arg Leu Lys Gln Leu Lys Arg Gln Leu Glu Glu Ala Glu Glu Glu		
1875	1880	1885
Ala Gln Arg Ala Asn Ala Ser Arg Arg Lys Leu Gln Arg Glu Leu Glu		
1890	1895	1900
Asp Ala Thr Glu Thr Ala Asp Ala Met Asn Arg Glu Val Ser Ser Leu		
1905	1910	1915
Lys Asn Lys Leu Arg Arg Gly Asp Leu Pro Phe Val Val Pro Arg Arg		1920
1925	1930	1935
Met Ala Arg Lys Gly Ala Gly Asp Gly Ser Asp Glu Glu Val Asp Gly		
1940	1945	1950
Lys Ala Asp Gly Ala Glu Ala Lys Pro Ala Glu		
1955	1960	1963

<210> 3485
 <211> 595
 <212> PRT
 <213> Homo sapiens

<400> 3485
 Cys Ser Thr Gly Val Ser Lys Ala Pro Leu Thr Tyr Leu Met Ser Tyr
 1 5 10 15
 Gly Phe Glu Leu Gly Trp Arg Lys Gly Asn Arg Ala Val Ala Cys Arg
 20 25 30
 Glu Asp Arg Gly Gly Glu Ser Val Gly Met Gly Gln Glu Ser Ile Leu
 35 40 45
 Ser Gln Val His Trp Trp Glu Ala Glu Pro Val Glu Lys Thr Pro Gly
 50 55 60
 Arg Asp Ser Glu Ala Thr Ile Met Ser Leu Arg Val His Thr Leu Pro
 65 70 75 80
 Thr Leu Leu Gly Ala Val Val Arg Pro Gly Cys Arg Glu Leu Leu Cys
 85 90 95
 Leu Leu Met Ile Thr Val Thr Val Gly Pro Gly Ala Ser Gly Val Cys
 100 105 110
 Pro Thr Ala Cys Ile Cys Ala Thr Asp Ile Val Ser Cys Thr Asn Lys
 115 120 125
 Asn Leu Ser Lys Val Pro Gly Asn Leu Phe Arg Leu Ile Lys Arg Leu
 130 135 140
 Asp Leu Ser Tyr Asn Arg Ile Gly Leu Leu Asp Ser Glu Trp Ile Pro
 145 150 155 160
 Val Ser Phe Ala Lys Leu Asn Thr Leu Ile Leu Arg His Asn Asn Ile
 165 170 175
 Thr Ser Ile Ser Thr Gly Ser Phe Ser Thr Thr Pro Asn Leu Lys Cys
 180 185 190
 Leu Asp Leu Ser Ser Asn Lys Leu Lys Thr Val Lys Asn Ala Val Phe
 195 200 205
 Gln Glu Leu Lys Val Leu Glu Val Leu Leu Leu Tyr Asn Asn His Ile
 210 215 220
 Ser Tyr Leu Asp Pro Ser Ala Phe Gly Gly Leu Ser Gln Leu Gln Lys
 225 230 235 240
 Leu Tyr Leu Ser Gly Asn Phe Leu Thr Gln Phe Pro Met Asp Leu Tyr
 245 250 255
 Val Gly Arg Phe Lys Leu Ala Glu Leu Met Phe Leu Asp Val Ser Tyr
 260 265 270
 Asn Arg Ile Pro Ser Met Pro Met His His Ile Asn Leu Val Pro Gly
 275 280 285
 Lys Gln Leu Arg Gly Ile Tyr Leu His Gly Asn Pro Phe Val Cys Asp
 290 295 300
 Cys Ser Leu Val Ser Leu Leu Val Phe Trp Tyr Arg Arg His Phe Ser
 305 310 315 320
 Ser Val Met Asp Phe Lys Asn Asp Tyr Thr Cys Arg Leu Trp Ser Asp
 325 330 335
 Ser Arg His Ser Arg Gln Val Leu Leu Leu Gln Asp Ser Phe Met Asn
 340 345 350
 Cys Ser Asp Ser Ile Ile Asn Gly Ser Phe Arg Ala Leu Gly Phe Ile
 355 360 365
 His Glu Ala Gln Val Gly Glu Arg Leu Met Val His Cys Asp Ser Lys
 370 375 380
 Thr Gly Asn Ala Asn Thr Asp Phe Ile Trp Val Gly Pro Asp Asn Arg
 385 390 395 400
 Leu Leu Glu Pro Asp Lys Glu Met Glu Asn Phe Tyr Val Phe His Asn
 405 410 415
 Gly Ser Leu Val Ile Glu Ser Pro Arg Phe Glu Asp Ala Gly Val Tyr
 420 425 430
 Ser Cys Ile Ala Met Asn Lys Gln Arg Leu Leu Asn Glu Thr Val Asp
 435 440 445
 Val Thr Ile Asn Val Ser Asn Phe Thr Val Ser Arg Ser His Ala His

450	455	460
Glu Ala Phe Asn Thr Ala	Phe Thr Thr Leu Ala	Ala Cys Val Ala Ser
465	470	475
Ile Val Leu Val Leu Leu	Tyr Leu Tyr Leu Thr	Pro Cys Pro Cys Lys
	485	490
Cys Lys Thr Lys Arg Gln	Lys Asn Met Leu His	Gln Ser Asn Ala His
	500	505
Ser Ser Ile Leu Ser Pro	Gly Pro Ala Ser Asp	Ala Ser Ala Asp Glu
	515	520
Arg Lys Ala Gly Ala Gly	Lys Arg Val Val Phe	Leu Glu Pro Leu Lys
	530	535
Asp Thr Ala Ala Gly Gln	Asn Gly Lys Val Arg	Leu Phe Pro Ser Glu
545	550	555
Ala Val Ile Ala Glu Gly	Ile Leu Lys Ser Thr	Arg Gly Lys Ser Asp
	565	570
Ser Asp Ser Val Asn Ser	Val Phe Ser Asp Thr	Pro Phe Val Ala Ser
	580	585
		590
Thr		
593		

<210> 3486
 <211> 273
 <212> PRT
 <213> Homo sapiens

<400> 3486

Gly Asp Pro Arg Glu Thr	Lys Val Phe Pro Ser	Arg Ser Phe Ala Arg
1	5	10
Asn Thr Val Gly Val Ser	His His Gln Ser His	Leu Phe His Thr Val
	20	25
Ser Arg Ile Tyr Val Glu	Asp Lys His Lys Ile	Leu Tyr Cys Glu Val
	35	40
Pro Lys Ala Gly Cys Ser	Asn Trp Lys Arg Ile	Leu Met Val Leu Asn
	50	55
Gly Leu Ala Ser Ser Ala	Tyr Asn Ile Ser His	Asn Ala Val His Tyr
65	70	75
Gly Lys His Leu Lys Lys	Leu Asp Ser Phe Asp	Leu Lys Gly Ile Tyr
	85	90
Thr Arg Leu Asp Thr Tyr	Thr Lys Leu Val Leu	Val Arg Asp Pro Met
	100	105
Glu Arg Leu Val Ser Ala	Phe Arg Asp Lys Phe	Asp His Pro Asn Ser
	115	120
Tyr Tyr His Pro Val Phe	Gly Lys Ala Ile Ile	Lys Lys Tyr Arg Pro
	130	135
Asn Ala Cys Glu Glu Ala	Leu Ile Asn Gly Ser	Gly Val Lys Phe Lys
145	150	155
Glu Phe Ile His Tyr Leu	Leu Asp Ser His Arg	Pro Val Gly Met Asp
	165	170
Ile His Trp Glu Lys Val	Ser Lys Leu Cys Tyr	Pro Cys Leu Ile Asn
	180	185
Tyr Asp Phe Val Gly Lys	Phe Glu Thr Leu Glu	Glu Asp Ala Asn Tyr
	195	200
Phe Leu Gln Met Ile Gly	Ala Pro Lys Glu Leu	Lys Phe Pro Asn Phe
	210	215
Lys Asp Arg His Ser Ser	Asp Glu Arg Thr Asn	Ala Gln Val Val Arg
225	230	235
Gln Tyr Leu Lys Asp Leu	Thr Arg Thr Glu Arg	Gln Leu Ile Tyr Asp
	245	250
Phe Tyr Tyr Leu Asp Tyr	Leu Met Phe Asn Tyr	Thr Thr Pro Phe Leu
	260	265
		270
		272

<210> 3487
 <211> 1093
 <212> PRT
 <213> Homo sapiens

<400> 3487
 Cys Asp Lys Ser Gly Ala Val Pro Phe Ser Thr Thr Arg Ser Pro Arg
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 Arg Pro Ser Pro Arg Ser Ala Gly Pro Ser Leu Ser Ser Val Ser Pro
 20 25 30
 Arg Ser Gln Leu Trp Ala Ser Ser Gly Leu Ser Glu Glu His Ala Ala
 35 40 45
 Pro Leu Leu Pro Ala Trp Pro Arg His Pro Cys Pro Pro Ser Leu Thr
 50 55 60
 Pro Gly Pro Ser Met Ala Gln Gly Ala Met Arg Phe Cys Ser Glu Gly
 65 70 75 80
 Asp Cys Ala Ile Ser Pro Pro Arg Cys Pro Arg Arg Trp Leu Pro Glu
 85 90 95
 Gly Pro Val Pro Gln Ser Pro Pro Ala Ser Met Tyr Gly Ser Thr Gly
 100 105 110
 Ser Leu Leu Arg Arg Val Ala Gly Pro Gly Pro Arg Gly Arg Glu Leu
 115 120 125
 Gly Arg Val Thr Ala Pro Cys Thr Pro Leu Arg Gly Pro Pro Ser Pro
 130 135 140
 Arg Val Ala Pro Ser Pro Trp Ala Pro Ser Ser Pro Thr Gly Gln Pro
 145 150 155 160
 Pro Pro Gly Ala Gln Ser Ser Val Val Ile Phe Arg Phe Val Glu Lys
 165 170 175
 Ala Ser Val Arg Pro Leu Asn Gly Leu Pro Ala Pro Gly Gly Leu Ser
 180 185 190
 Arg Ser Trp Asp Leu Gly Gly Val Ser Pro Pro Arg Pro Thr Pro Ala
 195 200 205
 Leu Gly Pro Gly Ser Asn Arg Lys Leu Arg Leu Glu Ala Ser Thr Ser
 210 215 220
 Asp Pro Leu Pro Ala Arg Gly Gly Ser Ala Leu Pro Gly Ser Arg Asn
 225 230 235 240
 Leu Val His Gly Pro Pro Ala Pro Pro Gln Val Gly Ala Asp Gly Leu
 245 250 255
 Tyr Ser Ser Leu Pro Asn Gly Leu Gly Asp Pro Pro Glu Arg Leu Ala
 260 265 270
 Thr Leu Phe Gly Gly Pro Ala Asp Thr Gly Phe Leu Asn Gln Gly Asp
 275 280 285
 Thr Trp Ser Ser Pro Arg Glu Val Ser Ser His Ala Gln Arg Ile Ala
 290 295 300
 Arg Ala Lys Trp Glu Phe Phe Tyr Gly Ser Leu Asp Pro Pro Ser Ser
 305 310 315 320
 Gly Ala Lys Pro Pro Glu Gln Ala Pro Pro Ser Pro Pro Gly Val Gly
 325 330 335
 Ser Arg Gln Gly Ser Gly Val Ala Val Gly Arg Ala Ala Lys Tyr Ser
 340 345 350
 Glu Thr Asp Leu Asp Thr Val Pro Leu Arg Cys Tyr Arg Glu Thr Asp
 355 360 365
 Ile Asp Glu Val Leu Ala Glu Arg Glu Glu Ala Asp Ser Ala Ile Glu
 370 375 380
 Ser Gln Pro Ser Ser Glu Gly Pro Pro Gly Thr Ala Tyr Pro Pro Ala
 385 390 395 400
 Pro Arg Pro Gly Pro Leu Pro Gly Pro His Pro Ser Leu Gly Ser Gly
 405 410 415
 Asn Glu Asp Glu Asp Asp Asp Glu Ala Gly Gly Glu Glu Asp Val Asp

5212

930 935 940
 Pro Ala Ala Val Ser Ser Gln Lys Lys Phe Ser Arg Pro Leu Leu Pro
 945 950 955 960
 Ser Ala Ala Thr Arg Leu Ser Gln Glu Glu Gln Val Arg Thr His Glu
 965 970 975
 Ala Lys Leu Lys Ala Met Ala Ser Glu Leu Arg Glu His Arg Ala Ala
 980 985 990
 Gln Leu Gly Lys Lys Gly Arg Gly Lys Glu Ala Glu Glu Gln Arg Gln
 995 1000 1005
 Lys Glu Ala Tyr Leu Glu Phe Glu Lys Ser Arg Tyr Ser Thr Tyr Ala
 1010 1015 1020
 Ala Leu Leu Arg Val Lys Leu Lys Ala Gly Ser Glu Glu Leu Asp Ala
 1025 1030 1035 1040
 Val Glu Ala Ala Leu Ala Gln Ala Gly Ser Thr Glu Asp Gly Leu Pro
 1045 1050 1055
 Pro Ser His Ser Ser Pro Ser Leu Gln Pro Lys Pro Ser Ser Gln Pro
 1060 1065 1070
 Arg Ala Gln Arg His Ser Ser Glu Pro Arg Pro Gly Ala Gly Ser Gly
 1075 1080 1085
 Arg Arg Lys Pro
 1090 1092

<210> 3488

<211> 510

<212> PRT

<213> Homo sapiens

<400> 3488

Gly Thr Glu Thr Pro His Cys Trp Gly Arg Gly Thr Ala Gly Leu Arg
 1 5 10 15
 Arg Glu Leu Asp Arg Glu Glu Arg Asp Gly Pro Gly Thr Ala Thr Met
 20 25 30
 Ser Phe Pro His Phe Gly His Pro Tyr Arg Gly Ala Phe Gln Phe Leu
 35 40 45
 Ala Ser Ala Ser Ser Ser Thr Thr Cys Cys Glu Ser Thr Leu Arg Ser
 50 55 60
 Val Ser Tyr Val Ala Ser Gly Ser Thr Pro Ala Pro Ala Leu Cys Cys
 65 70 75 80
 Ala Pro Tyr Asp Ser Arg Leu Leu Gly Ser Ala Arg Pro Glu Leu Gly
 85 90 95
 Ala Ala Leu Gly Ile Tyr Gly Ala Pro Tyr Ala Ala Ala Ala Ala
 100 105 110
 Gln Ser Tyr Pro Gly Tyr Leu Pro Tyr Ser Pro Glu Pro Pro Ser Leu
 115 120 125
 Tyr Gly Ala Leu Asn Pro Gln Tyr Glu Phe Lys Glu Ala Ala Gly Ser
 130 135 140
 Phe Thr Ser Ser Leu Ala Gln Pro Gly Ala Tyr Tyr Pro Tyr Glu Arg
 145 150 155 160
 Thr Leu Gly Gln Tyr Gln Tyr Glu Arg Tyr Gly Ala Val Glu Leu Ser
 165 170 175
 Gly Ala Gly Arg Arg Lys Asn Ala Thr Arg Glu Thr Thr Ser Thr Leu
 180 185 190
 Lys Ala Trp Leu Asn Glu His Arg Lys Asn Pro Tyr Pro Thr Lys Gly
 195 200 205
 Glu Lys Ile Met Leu Ala Ile Ile Thr Lys Met Thr Leu Thr Gln Val
 210 215 220
 Ser Thr Trp Phe Ala Asn Ala Arg Arg Arg Leu Lys Lys Glu Asn Lys
 225 230 235 240
 Met Thr Trp Ala Pro Lys Asn Lys Gly Gly Glu Glu Arg Lys Ala Glu
 245 250 255
 Gly Gly Glu Glu Asp Ser Leu Gly Cys Leu Thr Ala Asp Thr Lys Glu

260	265	270
Val Thr Ala Ser Gln Glu Ala Arg Gly Leu Arg Leu Ser Asp Leu Glu		
275	280	285
Asp Leu Glu Glu Glu Glu Glu Glu Glu Glu Ala Glu Asp Glu Glu		
290	295	300
Val Val Ala Thr Ala Gly Asp Arg Leu Thr Glu Phe Arg Lys Gly Ala		
305	310	315
Gln Ser Leu Pro Gly Pro Cys Ala Ala Ala Arg Glu Gly Arg Leu Glu		
325	330	335
Arg Arg Glu Cys Gly Leu Ala Ala Pro Arg Phe Ser Phe Asn Asp Pro		
340	345	350
Ser Gly Ser Glu Glu Ala Asp Phe Leu Ser Ala Glu Thr Gly Ser Pro		
355	360	365
Arg Leu Thr Met His Tyr Pro Cys Leu Glu Lys Pro Arg Ile Trp Ser		
370	375	380
Leu Ala His Thr Ala Thr Ala Ser Ala Val Glu Gly Ala Pro Pro Ala		
385	390	395
Arg Pro Arg Pro Arg Ser Pro Glu Cys Arg Met Ile Pro Gly Gln Pro		
405	410	415
Pro Ala Ser Ala Arg Arg Leu Ser Val Pro Arg Asp Ser Ala Cys Asp		
420	425	430
Glu Ser Ser Cys Ile Pro Lys Ala Phe Gly Asn Pro Lys Phe Ala Leu		
435	440	445
Gln Gly Leu Pro Leu Asn Cys Ala Pro Cys Pro Arg Arg Ser Glu Pro		
450	455	460
Val Val Gln Cys Gln Tyr Pro Ser Gly Ala Glu Gly Ser Gly Pro Pro		
465	470	475
Ala Ala Leu Gly Val Ser Met Gln Lys Thr Pro Thr Tyr Arg Pro Ala		
485	490	495
Arg Gln Leu His Thr Leu Cys His Ser Ser Leu Pro		
500	505	508

<210> 3489

<211> 452

<212> PRT

<213> Homo sapiens

<400> 3489

Ile Ala Ala Tyr His Lys Ala Leu Ser Tyr Arg Gly His Val His Ala	
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Asn Asn Arg Gly Thr Asn Asn Val His Phe Thr Pro Pro Pro Ser Pro	
20 25 30	
Ser Arg Gly Ile Leu Pro Met Asn Pro Arg Asn Met Met Asn His Ser	
35 40 45	
Gln Val Gly Gln Gly Ile Gly Ile Pro Ser Arg Thr Asn Ser Met Ser	
50 55 60	
Ser Ser Gly Leu Gly Ser Pro Asn Arg Ser Ser Pro Ser Ile Ile Cys	
65 70 75 80	
Met Pro Lys Gln Gln Pro Ser Arg Gln Pro Phe Thr Val Asn Ser Met	
85 90 95	
Ser Gly Phe Gly Met Asn Arg Asn Gln Ala Phe Gly Met Asn Asn Ser	
100 105 110	
Leu Ser Ser Asn Ile Phe Asn Gly Thr Asp Gly Ser Glu Asn Val Thr	
115 120 125	
Gly Leu Asp Leu Ser Asp Phe Pro Ala Leu Ala Asp Arg Asn Arg Arg	
130 135 140	
Glu Gly Ser Gly Asn Pro Thr Pro Leu Ile Asn Pro Leu Ala Gly Arg	
145 150 155 160	
Ala Pro Tyr Val Gly Met Val Thr Lys Pro Ala Asn Glu Gln Ser Gln	
165 170 175	
Asp Phe Ser Ile His Asn Glu Asp Phe Pro Ala Leu Pro Gly Ser Ser	

[illegible]

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<210> 3490
<211> 944
<212> PRT
<213> Homo sapiens
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<400> 3490															
Phe	Val	Ala	Lys	Met	Ala	Thr	Ser	Gln	Tyr	Phe	Asp	Phe	Ala	Gln	Gly
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Gly	Gly	Pro	Gln	Tyr	Ser	Thr	Gln	Ala	Pro	Thr	Leu	Pro	Leu	Pro	Thr
			20					25					30		
Val	Gly	Ala	Ser	Tyr	Thr	Gly	Gln	Pro	Thr	Pro	Gly	Met	Asp	Pro	Ala
		35					40					45			
Val	Asn	Pro	Ala	Phe	Pro	Pro	Ala	Ala	Pro	Ala	Gly	Tyr	Gly	Gly	Tyr
	50					55					60				
Gln	Pro	His	Ser	Gly	Gln	Asp	Phe	Ala	Tyr	Gly	Ser	Arg	Pro	Gln	Glu
65					70					75					80
Pro	Val	Pro	Thr	Ala	Thr	Thr	Met	Ala	Thr	Tyr	Gln	Asp	Ser	Tyr	Ser
				85					90					95	
Tyr	Gly	Gln	Ser	Ala	Ala	Ala	Arg	Ser	Tyr	Glu	Asp	Arg	Pro	Tyr	Phe
			100					105					110		
Gln	Ser	Ala	Ala	Leu	Gln	Ser	Gly	Arg	Met	Thr	Ala	Ala	Asp	Ser	Gly
		115					120					125			
Gln	Pro	Gly	Thr	Gln	Glu	Ala	Cys	Gly	Gln	Pro	Ser	Pro	His	Gly	Ser
	130					135					140				
His	Ser	His	Ala	Gln	Pro	Pro	Gln	Gln	Ala	Pro	Ile	Val	Glu	Ser	Gly

145					150					155				160	
Gln	Pro	Ala	Ser	Thr	Leu	Ser	Ser	Gly	Tyr	Thr	Tyr	Pro	Thr	Ala	Thr
				165					170					175	
Gly	Val	Gln	Pro	Glu	Ser	Ser	Ala	Ser	Ile	Val	Thr	Ser	Tyr	Pro	Pro
			180					185					190		
Pro	Ser	Tyr	Asn	Pro	Thr	Cys	Thr	Ala	Tyr	Thr	Ala	Pro	Ser	Tyr	Pro
		195					200					205			
Asn	Tyr	Asp	Ala	Ser	Val	Tyr	Ser	Ala	Ala	Ser	Pro	Phe	Tyr	Pro	Pro
	210					215					220				
Ala	Gln	Pro	Pro	Pro	Pro	Pro	Gly	Pro	Pro	Gln	Gln	Leu	Pro	Pro	Pro
225					230					235				240	
Pro	Ala	Pro	Ala	Gly	Ser	Gly	Ser	Ser	Pro	Arg	Ala	Asp	Ser	Lys	Pro
				245					250					255	
Pro	Leu	Pro	Ser	Lys	Leu	Pro	Arg	Pro	Lys	Ala	Gly	Pro	Arg	Gln	Leu
			260					265					270		
Gln	Leu	His	Tyr	Cys	Asp	Ile	Cys	Lys	Ile	Ser	Cys	Ala	Gly	Pro	Gln
		275					280					285			
Thr	Tyr	Arg	Glu	His	Leu	Gly	Gly	Gln	Lys	His	Arg	Lys	Lys	Glu	Ala
	290					295						300			
Ala	Gln	Lys	Thr	Gly	Val	Gln	Pro	Asn	Gly	Ser	Pro	Arg	Gly	Val	Gln
305					310					315				320	
Ala	Gln	Leu	His	Cys	Asp	Leu	Cys	Ala	Val	Ser	Cys	Thr	Gly	Ala	Asp
				325					330					335	
Ala	Tyr	Ala	Ala	His	Ile	Arg	Gly	Ser	Lys	His	Gln	Lys	Val	Phe	Lys
			340				345						350		
Leu	His	Ala	Lys	Leu	Gly	Lys	Pro	Ile	Pro	Thr	Leu	Glu	Pro	Ala	Leu
	355						360					365			
Ala	Thr	Glu	Ser	Pro	Pro	Gly	Ala	Glu	Ala	Lys	Pro	Thr	Ser	Pro	Thr
	370					375					380				
Gly	Pro	Ser	Val	Cys	Ala	Ser	Ser	Arg	Pro	Ala	Leu	Ala	Lys	Arg	Pro
385					390					395				400	
Val	Ala	Ser	Lys	Ala	Leu	Cys	Glu	Gly	Pro	Pro	Glu	Pro	Gln	Ala	Ala
				405					410					415	
Gly	Cys	Arg	Pro	Gln	Trp	Gly	Lys	Pro	Ala	Gln	Pro	Lys	Leu	Glu	Gly
			420					425					430		
Pro	Gly	Ala	Pro	Thr	Gln	Gly	Gly	Ser	Lys	Glu	Ala	Pro	Ala	Gly	Cys
	435					440						445			
Ser	Asp	Ala	Gln	Pro	Val	Gly	Pro	Glu	Tyr	Val	Glu	Glu	Val	Phe	Ser
	450					455					460				
Asp	Glu	Gly	Arg	Val	Leu	Arg	Phe	His	Cys	Lys	Leu	Cys	Glu	Cys	Ser
465					470					475				480	
Phe	Asn	Asp	Leu	Asn	Ala	Lys	Asp	Leu	His	Val	Arg	Gly	Arg	Arg	His
				485					490					495	
Arg	Leu	Gln	Tyr	Arg	Lys	Lys	Val	Asn	Pro	Asp	Leu	Pro	Ile	Ala	Thr
			500					505					510		
Glu	Pro	Ser	Ser	Arg	Ala	Arg	Lys	Val	Leu	Glu	Glu	Arg	Met	Arg	Lys
	515						520					525			
Gln	Arg	His	Leu	Ala	Glu	Glu	Arg	Leu	Glu	Gln	Leu	Arg	Arg	Trp	His
	530					535					540				
Ala	Glu	Arg	Arg	Arg	Leu	Glu	Glu	Glu	Pro	Pro	Gln	Asp	Val	Pro	Pro
545					550					555				560	
His	Ala	Pro	Pro	Asp	Trp	Ala	Gln	Pro	Leu	Leu	Met	Gly	Arg	Pro	Glu
				565					570					575	
Ser	Pro	Ala	Ser	Ala	Pro	Leu	Gln	Pro	Gly	Arg	Arg	Pro	Ala	Ser	Ser
		580						585					590		
Asp	Asp	Arg	His	Val	Met	Cys	Lys	His	Ala	Thr	Ile	Tyr	Pro	Thr	Glu
	595						600					605			
Gln	Glu	Leu	Leu	Ala	Val	Gln	Arg	Ala	Val	Ser	His	Ala	Glu	Arg	Ala
	610					615					620				
Leu	Lys	Leu	Val	Ser	Asp	Thr	Leu	Ala	Glu	Glu	Asp	Arg	Gly	Arg	Arg
625					630					635				640	
Glu	Glu	Glu	Gly	Asp	Lys	Arg	Ser	Ser	Val	Ala	Pro	Gln	Thr	Arg	Val
				645					650					655	
Leu	Lys	Gly	Val	Met	Arg	Val	Gly	Ile	Leu	Ala	Lys	Gly	Leu	Leu	Leu

			660					665					670				
Arg	Gly	Asp	Arg	Asn	Val	Arg	Leu	Ala	Leu	Leu	Cys	Ser	Glu	Lys	Pro		
		675					680					685					
Thr	His	Ser	Leu	Leu	Arg	Arg	Ile	Ala	Gln	Gln	Leu	Pro	Arg	Gln	Leu		
	690					695					700						
Gln	Met	Val	Thr	Glu	Asp	Glu	Tyr	Glu	Val	Ser	Ser	Asp	Pro	Glu	Ala		
705					710					715					720		
Asn	Ile	Val	Ile	Ser	Ser	Cys	Glu	Glu	Pro	Arg	Met	Gln	Val	Thr	Ile		
				725					730					735			
Ser	Val	Thr	Ser	Pro	Leu	Met	Arg	Glu	Asp	Pro	Ser	Thr	Asp	Pro	Gly		
			740					745					750				
Val	Glu	Glu	Pro	Gln	Ala	Asp	Ala	Gly	Asp	Val	Leu	Ser	Pro	Lys	Lys		
		755					760					765					
Cys	Leu	Glu	Ser	Leu	Ala	Ala	Leu	Arg	His	Ala	Arg	Trp	Phe	Gln	Ala		
770						775					780						
Arg	Ala	Ser	Gly	Leu	Gln	Pro	Cys	Val	Ile	Val	Ile	Arg	Val	Leu	Arg		
785					790					795					800		
Asp	Leu	Cys	Arg	Arg	Val	Pro	Thr	Trp	Gly	Ala	Leu	Pro	Ala	Trp	Ala		
				805					810					815			
Met	Glu	Leu	Leu	Val	Glu	Lys	Ala	Val	Ser	Ser	Ala	Ala	Gly	Pro	Leu		
			820					825					830				
Gly	Pro	Gly	Asp	Ala	Val	Arg	Arg	Val	Leu	Glu	Cys	Val	Ala	Thr	Gly		
		835					840					845					
Thr	Leu	Leu	Thr	Asp	Gly	Pro	Gly	Leu	Gln	Asp	Pro	Cys	Glu	Arg	Asp		
	850				855						860						
Gln	Thr	Asp	Ala	Leu	Glu	Pro	Met	Thr	Leu	Gln	Glu	Arg	Glu	Asp	Val		
865					870					875					880		
Thr	Ala	Ser	Ala	Gln	His	Ala	Leu	Arg	Met	Leu	Ala	Phe	Arg	Gln	Thr		
				885				890						895			
His	Lys	Val	Leu	Gly	Met	Asp	Leu	Leu	Pro	Pro	Arg	His	Arg	Leu	Gly		
			900					905					910				
Ala	Arg	Phe	Arg	Lys	Arg	Gln	Arg	Gly	Pro	Gly	Glu	Gly	Glu	Glu	Gly		
		915					920					925					
Ala	Gly	Glu	Lys	Lys	Arg	Gly	Arg	Arg	Gly	Gly	Glu	Gly	Leu	Val			
	930					935					940			943			

<210> 3491

<211> 441

<212> PRT

<213> Homo sapiens

<400> 3491

Phe	Val	Gly	Asp	Gly	Ala	Leu	Ser	Gly	Cys	Arg	Arg	Gly	Arg	Ala	Pro		
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Arg	Val	Pro	Ser	Met	Ala	Gly	Ser	Leu	Pro	Pro	Cys	Val	Val	Asp	Cys		
			20					25					30				
Gly	Thr	Gly	Tyr	Thr	Lys	Leu	Gly	Tyr	Ala	Gly	Asn	Thr	Glu	Pro	Gln		
	35						40					45					
Phe	Ile	Ile	Pro	Ser	Cys	Ile	Ala	Ile	Arg	Glu	Ser	Ala	Lys	Val	Val		
	50					55					60						
Asp	Gln	Ala	Gln	Arg	Arg	Val	Leu	Arg	Gly	Val	Asp	Asp	Leu	Asp	Phe		
65					70					75					80		
Phe	Ile	Gly	Asp	Glu	Ala	Ile	Asp	Lys	Pro	Thr	Tyr	Ala	Thr	Lys	Trp		
			85					90						95			
Pro	Ile	Arg	His	Gly	Ile	Ile	Glu	Asp	Trp	Asp	Leu	Met	Glu	Arg	Phe		
			100					105					110				
Met	Glu	Gln	Val	Val	Phe	Lys	Tyr	Leu	Arg	Ala	Glu	Pro	Glu	Asp	His		
		115					120					125					
Tyr	Phe	Leu	Met	Thr	Glu	Pro	Pro	Leu	Asn	Thr	Pro	Glu	Asn	Arg	Glu		
	130					135					140						
Tyr	Leu	Ala	Glu	Ile	Met	Phe	Glu	Ser	Phe	Asn	Val	Pro	Gly	Leu	Tyr		

145		150		155		160									
Ile	Ala	Val	Gln	Ala	Val	Leu	Ala	Leu	Ala	Ala	Ser	Trp	Thr	Ser	Arg
			165						170						175
Gln	Val	Gly	Glu	Arg	Thr	Leu	Thr	Gly	Ile	Val	Ile	Asp	Ser	Gly	Asp
			180						185						190
Gly	Val	Thr	His	Val	Ile	Pro	Val	Ala	Glu	Gly	Tyr	Val	Ile	Gly	Ser
			195					200					205		
Cys	Ile	Lys	His	Ile	Pro	Ile	Ala	Gly	Arg	Asp	Ile	Thr	Tyr	Phe	Ile
	210					215					220				
Gln	Gln	Leu	Leu	Arg	Glu	Arg	Glu	Val	Gly	Ile	Pro	Pro	Glu	Gln	Ser
	225				230					235					240
Leu	Glu	Thr	Ala	Lys	Ala	Ile	Lys	Glu	Lys	Tyr	Cys	Tyr	Ile	Cys	Pro
				245					250					255	
Asp	Ile	Val	Lys	Glu	Phe	Ala	Lys	Tyr	Asp	Val	Asp	Pro	Arg	Lys	Trp
			260					265					270		
Ile	Lys	Gln	Tyr	Thr	Gly	Ile	Asn	Ala	Ile	Asn	Gln	Lys	Lys	Phe	Val
	275					280					285				
Ile	Asp	Val	Gly	Tyr	Glu	Arg	Phe	Leu	Gly	Pro	Glu	Ile	Phe	Phe	His
	290					295					300				
Pro	Glu	Phe	Ala	Asn	Pro	Asp	Phe	Met	Glu	Ser	Ile	Ser	Asp	Val	Val
	305				310					315					320
Asp	Glu	Val	Ile	Gln	Asn	Cys	Pro	Ile	Asp	Val	Arg	Arg	Pro	Leu	Tyr
				325					330					335	
Lys	Asn	Val	Val	Leu	Ser	Gly	Gly	Ser	Thr	Met	Phe	Arg	Asp	Phe	Gly
			340					345					350		
Arg	Arg	Leu	Gln	Arg	Asp	Leu	Lys	Arg	Val	Val	Asp	Ala	Arg	Leu	Arg
	355					360					365				
Leu	Ser	Glu	Glu	Leu	Ser	Gly	Gly	Arg	Ile	Lys	Pro	Lys	Pro	Val	Glu
	370					375					380				
Val	Gln	Val	Val	Thr	His	His	Met	Gln	Arg	Tyr	Ala	Val	Trp	Phe	Gly
	385				390					395					400
Gly	Ser	Met	Leu	Ala	Ser	Thr	Pro	Glu	Phe	Phe	Gln	Val	Cys	His	Thr
				405					410					415	
Lys	Lys	Asp	Tyr	Glu	Glu	Tyr	Gly	Pro	Ser	Ile	Cys	Arg	His	Asn	Pro
			420					425					430		
Val	Phe	Gly	Val	Met	Ser										
	435				438										

<210> 3492

<211> 674

<212> PRT

<213> Homo sapiens

<400> 3492

Pro	Asn	Gly	Val	Ala	Leu	Leu	His	Leu	Pro	Gly	Ala	Ala	Val	Ile	Pro
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Asn	Thr	Asn	Tyr	Met	Phe	Gln	Asp	Ala	Leu	Gly	Gly	Arg	Ser	Arg	Gly
			20					25					30		
Ser	Arg	Glu	Glu	Ser	Pro	Ala	Pro	Ser	Arg	Ala	Pro	Ala	Ser	Ala	Ser
	35					40					45				
Leu	Trp	Arg	Arg	Leu	Val	Val	Val	Glu	Ala	Lys	Met	Ala	Ala	His	Ala
	50					55					60				
Ala	Ala	Ala	Ala	Gln	Ala	Ala	Ala	Ala	Gln	Ala	Ala	His	Ala	Glu	Ala
	65				70				75					80	
Ala	Asp	Ser	Trp	Tyr	Leu	Ala	Leu	Leu	Gly	Phe	Ala	Glu	His	Phe	Arg
				85				90						95	
Thr	Ser	Ser	Pro	Pro	Lys	Ile	Arg	Leu	Cys	Val	His	Cys	Leu	Gln	Ala
			100					105					110		
Val	Phe	Pro	Phe	Lys	Pro	Pro	Gln	Arg	Ile	Glu	Ala	Arg	Thr	His	Leu
	115						120					125			
Gln	Leu	Gly	Ser	Val	Leu	Tyr	His	His	Thr	Lys	Asn	Ser	Glu	Gln	Ala

130	135	140
Arg Ser His Leu Glu Lys	Ala Trp Leu Ile Ser	Gln Gln Ile Pro Gln
145	150	155
Phe Glu Asp Val Lys	Phe Glu Ala Ala Ser	Leu Leu Ser Glu Leu Tyr
165	170	175
Cys Gln Glu Asn Ser Val	Asp Ala Ala Lys	Pro Leu Leu Arg Lys Ala
180	185	190
Ile Gln Ile Ser Gln Gln	Thr Pro Tyr Trp His	Cys Arg Leu Leu Phe
195	200	205
Gln Leu Ala Gln Leu His	Thr Leu Glu Lys Asp	Leu Val Ser Ala Cys
210	215	220
Asp Leu Leu Gly Val Gly	Ala Glu Tyr Ala Arg	Val Val Gly Ser Glu
225	230	235
Tyr Thr Arg Ala Leu Phe	Leu Leu Ser Lys	Gly Met Leu Leu Leu Met
245	250	255
Glu Arg Lys Leu Gln Glu	Val His Pro Leu Leu	Thr Leu Cys Gly Gln
260	265	270
Ile Val Glu Asn Trp Gln	Gly Asn Pro Ile Gln	Lys Glu Ser Leu Arg
275	280	285
Val Phe Phe Leu Val Leu	Gln Val Thr His Tyr	Leu Asp Ala Gly Gln
290	295	300
Val Lys Ser Val Lys Pro	Cys Leu Lys Gln Leu	Gln Gln Cys Ile Gln
305	310	315
Thr Ile Ser Thr Leu His	Asp Asp Glu Ile Leu	Pro Ser Asn Pro Ala
325	330	335
Asp Leu Phe His Trp Leu	Pro Lys Glu His Met	Cys Val Leu Val Tyr
340	345	350
Leu Val Thr Val Met His	Ser Met Gln Ala Gly	Tyr Leu Glu Lys Ala
355	360	365
Gln Lys Tyr Thr Asp Lys	Ala Leu Met Gln Leu	Glu Lys Leu Lys Met
370	375	380
Leu Asp Cys Ser Pro Ile	Leu Ser Ser Phe Gln	Val Ile Leu Leu Glu
385	390	395
His Ile Ile Met Cys Arg	Leu Val Thr Gly His	Lys Ala Thr Ala Leu
405	410	415
Gln Glu Ile Ser Gln Val	Cys Gln Leu Cys Gln	Gln Ser Pro Arg Leu
420	425	430
Phe Ser Asn His Ala Ala	Gln Leu His Thr Leu	Leu Leu Gly Leu Tyr Cys
435	440	445
Val Ser Val Asn Cys Met	Asp Asn Ala Glu Ala	Gln Phe Thr Thr Ala
450	455	460
Leu Arg Leu Thr Asn His	Gln Glu Leu Trp Ala	Phe Ile Val Thr Asn
465	470	475
Leu Ala Ser Val Tyr Ile	Arg Glu Gly Asn Arg	His Gln Glu Val Val
485	490	495
Leu Tyr Ser Leu Leu Glu	Arg Ile Asn Pro Asp	His Ser Phe Pro Val
500	505	510
Ser Ser His Cys Leu Arg	Ala Ala Ala Phe Tyr	Val Arg Gly Leu Phe
515	520	525
Ser Phe Phe Gln Gly Arg	Tyr Asn Glu Ala Lys	Arg Phe Leu Arg Glu
530	535	540
Thr Leu Lys Met Ser Asn	Ala Glu Asp Leu Asn	Arg Leu Thr Ala Cys
545	550	555
Ser Leu Val Leu Leu Gly	His Ile Phe Tyr Val	Leu Gly Asn His Arg
565	570	575
Glu Ser Asn Asn Met Val	Val Pro Ala Met Gln	Leu Ala Ser Lys Ile
580	585	590
Pro Asp Met Ser Val Gln	Leu Trp Ser Ser Ala	Leu Leu Arg Asp Leu
595	600	605
Asn Lys Ala Cys Gly Asn	Ala Met Asp Ala His	Glu Ala Ala Gln Met
610	615	620
His Gln Asn Phe Ser Gln	Gln Leu Leu Gln Asp	His Ile Glu Ala Cys
625	630	635
Ser Leu Pro Glu His Asn	Leu Ile Thr Trp Thr	Asp Gly Pro Pro Pro

				645					650					655			
Val	Gln	Phe	Gln	Ala	Gln	Asn	Gly	Pro	Asn	Thr	Ser	Leu	Ala	Ser	Leu		
			660					665					670				
Leu																	
673																	

<210> 3493
 <211> 674
 <212> PRT
 <213> Homo sapiens

<400> 3493

Pro	Asn	Gly	Val	Ala	Leu	Leu	His	Leu	Pro	Gly	Ala	Ala	Val	Ile	Pro		
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Asn	Thr	Asn	Tyr	Met	Phe	Gln	Asp	Ala	Leu	Gly	Gly	Arg	Ser	Arg	Gly		
		20						25					30				
Ser	Arg	Glu	Glu	Ser	Pro	Ala	Pro	Ser	Arg	Ala	Pro	Ala	Ser	Ala	Ser		
		35					40					45					
Leu	Trp	Arg	Arg	Leu	Val	Val	Val	Glu	Ala	Lys	Met	Ala	Ala	His	Ala		
	50					55					60						
Ala	Ala	Ala	Ala	Gln	Ala	Ala	Ala	Ala	Gln	Ala	Ala	His	Ala	Glu	Ala		
	65			70					75					80			
Ala	Asp	Ser	Trp	Tyr	Leu	Ala	Leu	Leu	Gly	Phe	Ala	Glu	His	Phe	Arg		
			85					90					95				
Thr	Ser	Ser	Pro	Pro	Lys	Ile	Arg	Leu	Cys	Val	His	Cys	Leu	Gln	Ala		
			100					105					110				
Val	Phe	Pro	Phe	Lys	Pro	Pro	Gln	Arg	Ile	Glu	Ala	Arg	Thr	His	Leu		
	115						120					125					
Gln	Leu	Gly	Ser	Val	Leu	Tyr	His	His	Thr	Lys	Asn	Ser	Glu	Gln	Ala		
	130					135					140						
Arg	Ser	His	Leu	Glu	Lys	Ala	Trp	Leu	Ile	Ser	Gln	Gln	Ile	Pro	Gln		
	145				150					155				160			
Phe	Glu	Asp	Val	Lys	Phe	Glu	Ala	Ala	Ser	Leu	Leu	Ser	Glu	Leu	Tyr		
			165					170					175				
Cys	Gln	Glu	Asn	Ser	Val	Asp	Ala	Ala	Lys	Pro	Leu	Leu	Arg	Lys	Ala		
			180					185					190				
Ile	Gln	Ile	Ser	Gln	Gln	Thr	Pro	Tyr	Trp	His	Cys	Arg	Leu	Leu	Phe		
	195						200					205					
Gln	Leu	Ala	Gln	Leu	His	Thr	Leu	Glu	Lys	Asp	Leu	Val	Ser	Ala	Cys		
	210					215					220						
Asp	Leu	Leu	Gly	Val	Gly	Ala	Glu	Tyr	Ala	Arg	Val	Val	Gly	Ser	Glu		
	225				230					235				240			
Tyr	Thr	Arg	Ala	Leu	Phe	Leu	Leu	Ser	Lys	Gly	Met	Leu	Leu	Leu	Met		
			245					250					255				
Glu	Arg	Lys	Leu	Gln	Glu	Val	His	Pro	Leu	Leu	Thr	Leu	Cys	Gly	Gln		
			260					265					270				
Ile	Val	Glu	Asn	Trp	Gln	Gly	Asn	Pro	Ile	Gln	Lys	Glu	Ser	Leu	Arg		
	275						280					285					
Val	Phe	Phe	Leu	Val	Leu	Gln	Val	Thr	His	Tyr	Leu	Asp	Ala	Gly	Gln		
	290					295					300						
Val	Lys	Ser	Val	Lys	Pro	Cys	Leu	Lys	Gln	Leu	Gln	Gln	Cys	Ile	Gln		
	305				310					315				320			
Thr	Ile	Ser	Thr	Leu	His	Asp	Asp	Glu	Ile	Leu	Pro	Ser	Asn	Pro	Ala		
			325					330					335				
Asp	Leu	Phe	His	Trp	Leu	Pro	Lys	Glu	His	Met	Cys	Val	Leu	Val	Tyr		
			340					345					350				
Leu	Val	Thr	Val	Met	His	Ser	Met	Gln	Ala	Gly	Tyr	Leu	Glu	Lys	Ala		
		355				360						365					
Gln	Lys	Tyr	Thr	Asp	Lys	Ala	Leu	Met	Gln	Leu	Glu	Lys	Leu	Lys	Met		
	370					375					380						
Leu	Asp	Cys	Ser	Pro	Ile	Leu	Ser	Ser	Phe	Gln	Val	Ile	Leu	Leu	Glu		

385		390		395		400									
His	Ile	Ile	Met	Cys	Arg	Leu	Val	Thr	Gly	His	Lys	Ala	Thr	Ala	Leu
			405						410					415	
Gln	Glu	Ile	Ser	Gln	Val	Cys	Gln	Leu	Cys	Gln	Gln	Ser	Pro	Arg	Leu
			420					425					430		
Phe	Ser	Asn	His	Ala	Ala	Gln	Leu	His	Thr	Leu	Leu	Gly	Leu	Tyr	Cys
		435					440					445			
Val	Ser	Val	Asn	Cys	Met	Asp	Asn	Ala	Glu	Ala	Gln	Phe	Thr	Thr	Ala
	450				455					460					
Leu	Arg	Leu	Thr	Asn	His	Gln	Glu	Leu	Trp	Ala	Phe	Ile	Val	Thr	Asn
465				470					475					480	
Leu	Ala	Ser	Val	Tyr	Ile	Arg	Glu	Gly	Asn	Arg	His	Gln	Glu	Val	Val
			485					490					495		
Leu	Tyr	Ser	Leu	Glu	Arg	Ile	Asn	Pro	Asp	His	Ser	Phe	Pro	Val	
		500					505					510			
Ser	Ser	His	Cys	Leu	Arg	Ala	Ala	Ala	Phe	Tyr	Val	Arg	Gly	Leu	Phe
	515					520						525			
Ser	Phe	Phe	Gln	Gly	Arg	Tyr	Asn	Glu	Ala	Lys	Arg	Phe	Leu	Arg	Glu
	530				535						540				
Thr	Leu	Lys	Met	Ser	Asn	Ala	Glu	Asp	Leu	Asn	Arg	Leu	Thr	Ala	Cys
545				550					555						560
Ser	Leu	Val	Leu	Leu	Gly	His	Ile	Phe	Tyr	Val	Leu	Gly	Asn	His	Arg
			565					570					575		
Glu	Ser	Asn	Asn	Met	Val	Val	Pro	Ala	Met	Gln	Leu	Ala	Ser	Lys	Ile
		580						585					590		
Pro	Asp	Met	Ser	Val	Gln	Leu	Trp	Ser	Ser	Ala	Leu	Leu	Arg	Asp	Leu
	595					600					605				
Asn	Lys	Ala	Cys	Gly	Asn	Ala	Met	Asp	Ala	His	Glu	Ala	Ala	Gln	Met
	610				615						620				
His	Gln	Asn	Phe	Ser	Gln	Gln	Leu	Leu	Gln	Asp	His	Ile	Glu	Ala	Cys
625				630					635						640
Ser	Leu	Pro	Glu	His	Asn	Leu	Ile	Thr	Trp	Thr	Asp	Gly	Pro	Pro	Pro
			645					650					655		
Val	Gln	Phe	Gln	Ala	Gln	Asn	Gly	Pro	Asn	Thr	Ser	Leu	Ala	Ser	Leu
		660					665						670		
Leu															
673															

<210> 3494
 <211> 544
 <212> PRT
 <213> Homo sapiens

<400> 3494

Val	Leu	Arg	Gly	Gln	Arg	Gly	Pro	Ala	Gly	Gly	Leu	Ala	Glu	Glu	Arg
1				5					10					15	
Arg	Arg	Gly	Arg	Asn	Glu	Trp	Arg	Ile	His	Asp	Val	Thr	Thr	Ala	Pro
		20					25						30		
Phe	Pro	Gly	Leu	Val	Gln	Arg	Arg	Ser	Arg	Leu	Leu	Ile	Val	Ser	Gln
	35					40						45			
Val	Arg	Tyr	Phe	Leu	Lys	Asn	Lys	Val	Ser	Pro	Asp	Leu	Cys	Asn	Glu
	50				55					60					
Asp	Gly	Leu	Thr	Ala	Leu	His	Gln	Cys	Cys	Ile	Asp	Asn	Phe	Glu	Glu
65				70					75					80	
Ile	Val	Lys	Leu	Leu	Leu	Ser	His	Gly	Ala	Asn	Val	Asn	Ala	Lys	Asp
			85				90						95		
Asn	Glu	Leu	Trp	Thr	Pro	Leu	His	Ala	Ala	Ala	Thr	Cys	Gly	His	Ile
	100					105						110			
Asn	Leu	Val	Lys	Ile	Leu	Val	Gln	Tyr	Gly	Ala	Asp	Leu	Leu	Ala	Val
	115					120						125			
Asn	Ser	Asp	Gly	Asn	Met	Pro	Tyr	Asp	Leu	Cys	Glu	Asp	Glu	Pro	Thr

130	135	140
Leu Asp Val Ile Glu Thr Cys Met Ala Tyr Gln Gly Ile Thr Gln Glu		
145	150	155
Lys Ile Asn Glu Met Arg Val Ala Pro Glu Gln Gln Met Ile Ala Asp		160
	165	170
Ile His Cys Met Ile Ala Ala Gly Gln Asp Leu Asp Trp Ile Asp Ala		175
	180	185
Gln Gly Ala Thr Leu Leu His Ile Ala Gly Ala Asn Gly Tyr Leu Arg		190
	195	200
Ala Ala Glu Leu Leu Leu Asp His Gly Val Arg Val Asp Val Lys Asp		205
	210	215
Trp Asp Gly Trp Glu Pro Leu His Ala Ala Ala Phe Trp Gly Gln Met		220
225	230	235
Gln Met Ala Glu Leu Leu Val Ser His Gly Ala Asn Leu Asn Ala Arg		240
	245	250
Thr Ser Met Asp Glu Met Pro Ile Asp Leu Cys Glu Glu Glu Glu Phe		255
	260	265
Lys Val Leu Leu Leu Glu Leu Lys His Lys His Asp Val Ile Met Lys		270
	275	280
Ser Gln Leu Arg His Lys Ser Ser Leu Ser Arg Arg Thr Ser His Arg		285
	290	295
Gln Ala Ser Ser Val Gly Lys Val Val Arg Arg Thr Gln Pro Val Gly		300
305	310	315
Thr Gly Pro Asn Leu Tyr Arg Lys Glu Tyr Glu Gly Glu Glu Ala Ile		320
	325	330
Leu Trp Gln Arg Ser Ala Ala Glu Asp Gln Arg Thr Ser Thr Tyr Asn		335
	340	345
Gly Asp Ile Arg Glu Thr Arg Thr Asp Gln Glu Asn Lys Asp Pro Asn		350
	355	360
Pro Arg Leu Glu Lys Pro Val Leu Leu Ser Glu Phe Pro Thr Lys Ile		365
	370	375
Pro Arg Gly Glu Leu Asp Met Pro Val Glu Asn Gly Leu Arg Ala Pro		380
385	390	395
Val Ser Ala Tyr Gln Tyr Ala Leu Ala Asn Gly Asp Val Trp Lys Val		400
	405	410
His Glu Val Pro Asp Tyr Ser Met Ala Tyr Gly Asn Pro Gly Val Ala		415
	420	425
Asp Ala Thr Pro Pro Trp Ser Ser Tyr Lys Glu Gln Ser Pro Gln Thr		430
	435	440
Leu Leu Glu Leu Lys Arg Gln Arg Ala Ala Ala Lys Leu Leu Ser His		445
	450	455
Pro Phe Leu Ser Thr His Leu Gly Ser Ser Met Ala Arg Thr Gly Glu		460
465	470	475
Ser Ser Ser Glu Gly Lys Ala Pro Leu Ile Gly Gly Arg Thr Ser Pro		480
	485	490
Tyr Ser Ser Asn Gly Thr Ser Val Tyr Tyr Thr Val Thr Ser Gly Asp		495
	500	505
Pro Pro Leu Leu Lys Phe Lys Ala Pro Ile Glu Glu Met Glu Glu Lys		510
	515	520
Val His Gly Cys Cys Arg Ile Ser		525
530	535	536

<210> 3495
 <211> 252
 <212> PRT
 <213> Homo sapiens

<400> 3495
 Ala Pro Met Ala Asp Thr Thr Pro Asn Gly Pro Gln Gly Ala Gly Ala
 1 5 10 15
 Val Gln Phe Met Met Thr Asn Lys Leu Asp Thr Ala Met Trp Leu Ser

20	25	30
Arg Leu Phe Thr Val Tyr Cys Ser	Ala Leu Phe Val Leu Pro Leu Leu	
35	40	45
Gly Leu His Glu Ala Ala Ser Phe Tyr Gln Arg Ala Leu Leu Ala Asn		
50	55	60
Ala Leu Thr Ser Ala Leu Arg Leu His Gln Arg Leu Pro His Phe Gln		
65	70	75
Leu Ser Arg Ala Phe Leu Ala Gln Ala Leu Leu Glu Asp Ser Cys His		
85	90	95
Tyr Leu Leu Tyr Ser Leu Ile Phe Val Asn Ser Tyr Pro Val Thr Met		
100	105	110
Ser Ile Phe Pro Val Leu Leu Phe Ser Leu Leu His Ala Ala Thr Tyr		
115	120	125
Thr Lys Lys Val Leu Asp Ala Arg Gly Ser Asn Ser Leu Pro Leu Leu		
130	135	140
Arg Ser Val Leu Asp Lys Leu Ser Ala Asn Gln Gln Asn Ile Leu Lys		
145	150	155
Phe Ile Ala Cys Asn Glu Ile Phe Leu Met Pro Ala Thr Val Phe Met		
165	170	175
Leu Phe Ser Gly Gln Gly Ser Leu Leu Gln Pro Phe Ile Tyr Tyr Arg		
180	185	190
Phe Leu Thr Leu Arg Tyr Ser Ser Arg Arg Asn Pro Tyr Cys Arg Thr		
195	200	205
Leu Phe Asn Glu Leu Arg Ile Val Val Glu His Ile Ile Met Lys Pro		
210	215	220
Ala Cys Pro Leu Phe Val Arg Arg Leu Cys Leu Gln Ser Ile Ala Phe		
225	230	235
Ile Ser Arg Leu Ala Pro Thr Val Pro		240
245	249	

<210> 3496

<211> 956

<212> PRT

<213> Homo sapiens

<400> 3496

Ser Ser Arg Thr Arg Glu Met Glu Glu Lys Glu Ile Leu Arg Arg Gln	
1	5
Ile Arg Leu Leu Gln Gly Leu Ile Asp Asp Tyr Lys Thr Leu His Gly	
20	25
Asn Ala Pro Ala Pro Gly Thr Pro Ala Ala Ser Gly Trp Gln Pro Pro	
35	40
Thr Tyr His Ser Gly Arg Ala Phe Ser Ala Arg Tyr Pro Arg Pro Ser	
50	55
Arg Arg Gly Tyr Ser Ser His His Gly Pro Ser Trp Arg Lys Lys Tyr	
65	70
Ser Leu Val Asn Arg Pro Pro Gly Pro Ser Asp Pro Pro Ala Asp His	
85	90
Ala Val Arg Pro Leu His Gly Ala Arg Gly Gly Gln Pro Pro Val Pro	
100	105
Gln Gln His Val Leu Glu Arg Gln Val Gln Leu Ser Gln Gly Gln Asn	
115	120
Val Val Ile Lys Val Lys Pro Pro Ser Lys Ser Gly Ser Ala Ser Ala	
130	135
Ser Gly Ala Gln Arg Gly Ser Leu Glu Glu Phe Glu Asp Thr Pro Trp	
145	150
Ser Asp Gln Arg Pro Arg Glu Gly Glu Gly Glu Pro Pro Arg Gly Gln	
165	170
Leu Gln Pro Ser Arg Pro Thr Arg Ala Arg Gly Thr Cys Ser Val Glu	
180	185
Asp Pro Leu Leu Val Cys Gln Lys Glu Pro Gly Lys Pro Arg Met Val	
	190

195	200	205
Lys Ser Val Gly Ser Val	Gly Asp Ser Pro Arg Glu Pro Arg Arg Thr	
210	215	220
Val Ser Glu Ser Val Ile Ala Val Lys Ala Ser Phe Pro Ser Ser Ala		
225	230	235
Leu Pro Pro Arg Thr Gly Val Ala Leu Gly Arg Lys Leu Gly Ser His		240
245	250	255
Ser Val Ala Ser Cys Ala Pro Gln Leu Leu Gly Asp Arg Arg Val Asp		
260	265	270
Ala Gly His Thr Asp Gln Pro Val Pro Ser Gly Ser Val Gly Gly Pro		
275	280	285
Ala Arg Pro Ala Ser Gly Pro Arg Gln Ala Arg Glu Ala Ser Leu Val		
290	295	300
Val Thr Cys Arg Thr Asn Lys Phe Arg Lys Asn Asn Tyr Lys Trp Val		
305	310	315
Ala Ala Ser Ser Lys Ser Pro Arg Val Ala Arg Arg Ala Leu Ser Pro		320
325	330	335
Arg Val Ala Ala Glu Asn Val Cys Lys Ala Ser Ala Gly Met Ala Asn		
340	345	350
Lys Val Glu Lys Pro Gln Leu Ile Ala Asp Pro Glu Pro Lys Pro Arg		
355	360	365
Lys Pro Ala Thr Ser Ser Lys Pro Gly Ser Ala Pro Ser Lys Tyr Lys		
370	375	380
Trp Lys Ala Ser Ser Pro Ser Ala Ser Ser Ser Ser Phe Arg Trp		
385	390	395
Gln Ser Glu Ala Gly Ser Lys Asp His Ala Ser Gln Leu Ser Pro Val		400
405	410	415
Leu Ser Arg Ser Pro Ser Gly Asp Arg Pro Ala Leu Ala His Ser Gly		
420	425	430
Leu Lys Pro Leu Ser Gly Glu Thr Pro Leu Ser Ala Tyr Lys Val Lys		
435	440	445
Thr Arg Thr Lys Ile Ile Arg Arg Arg Gly Ser Thr Ser Leu Pro Gly		
450	455	460
Asp Lys Lys Ser Gly Thr Ser Pro Ala Ala Thr Ala Lys Ser His Leu		
465	470	475
Ser Leu Arg Arg Arg Gln Ala Leu Arg Gly Lys Ser Ser Pro Val Leu		
485	490	495
Lys Lys Thr Pro Asn Lys Gly Leu Val Gln Val Thr Lys His Arg Leu		
500	505	510
Cys Arg Leu Pro Pro Ser Arg Ala His Leu Pro Thr Lys Glu Ala Ser		
515	520	525
Ser Leu His Ala Val Arg Thr Ala Pro Thr Ser Lys Val Ile Lys Thr		
530	535	540
Arg Tyr Arg Ile Val Lys Lys Thr Pro Ala Ser Pro Leu Ser Ala Pro		
545	550	555
Pro Phe Pro Leu Ser Leu Pro Ser Trp Arg Ala Arg Arg Leu Ser Leu		
565	570	575
Ser Arg Ser Leu Val Leu Asn Arg Leu Arg Pro Val Ala Ser Gly Gly		
580	585	590
Gly Lys Ala Gln Pro Gly Ser Pro Trp Trp Arg Ser Lys Gly Tyr Arg		
595	600	605
Cys Ile Gly Gly Val Leu Tyr Lys Val Ser Ala Asn Lys Leu Ser Lys		
610	615	620
Thr Ser Gly Gln Pro Ser Asp Ala Gly Ser Arg Pro Leu Leu Arg Thr		
625	630	635
Gly Arg Leu Asp Pro Ala Gly Ser Cys Ser Arg Ser Leu Ala Ser Arg		
645	650	655
Ala Val Gln Arg Ser Leu Ala Ile Ile Arg Gln Ala Arg Gln Arg Arg		
660	665	670
Glu Lys Arg Lys Glu Tyr Cys Met Tyr Tyr Asn Arg Phe Gly Arg Cys		
675	680	685
Asn Arg Gly Glu Arg Cys Pro Tyr Ile His Asp Pro Glu Lys Val Ala		
690	695	700
Val Cys Thr Arg Phe Val Arg Gly Thr Cys Lys Lys Thr Asp Gly Thr		

705					710					715				720	
Cys	Pro	Phe	Ser	His	His	Val	Ser	Lys	Glu	Lys	Met	Pro	Val	Cys	Ser
				725					730					735	
Tyr	Phe	Leu	Lys	Gly	Ile	Cys	Ser	Asn	Ser	Asn	Cys	Pro	Tyr	Ser	His
			740					745					750		
Val	Tyr	Val	Ser	Arg	Lys	Ala	Glu	Val	Cys	Ser	Asp	Phe	Leu	Lys	Gly
		755					760					765			
Tyr	Cys	Pro	Leu	Gly	Ala	Lys	Cys	Lys	Lys	Lys	His	Thr	Leu	Leu	Cys
	770					775					780				
Pro	Asp	Phe	Ala	Arg	Arg	Gly	Ala	Cys	Pro	Arg	Gly	Ala	Gln	Cys	Gln
785					790					795					800
Leu	Leu	His	Arg	Thr	Gln	Lys	Arg	His	Ser	Arg	Arg	Ala	Ala	Thr	Ser
			805						810					815	
Pro	Ala	Pro	Gly	Pro	Ser	Asp	Ala	Thr	Ala	Arg	Ser	Arg	Val	Ser	Ala
			820					825					830		
Ser	His	Gly	Pro	Arg	Lys	Pro	Ser	Ala	Ser	Gln	Arg	Pro	Thr	Arg	Gln
		835					840					845			
Thr	Pro	Ser	Ser	Ala	Ala	Leu	Thr	Ala	Ala	Ala	Val	Ala	Ala	Pro	Pro
	850					855					860				
His	Cys	Pro	Gly	Gly	Ser	Ala	Ser	Pro	Ser	Ser	Ser	Lys	Ala	Ser	Ser
865					870					875					880
Ser	Ser	Ser	Ser	Ser	Ser	Ser	Pro	Pro	Ala	Ser	Leu	Asp	His	Glu	Ala
			885						890					895	
Pro	Ser	Leu	Gln	Glu	Ala	Ala	Leu	Ala	Ala	Ala	Cys	Ser	Asn	Arg	Leu
		900						905						910	
Cys	Lys	Leu	Pro	Ser	Phe	Ile	Ser	Leu	Gln	Ser	Ser	Pro	Ser	Pro	Gly
		915					920					925			
Ala	Gln	Pro	Arg	Val	Arg	Ala	Pro	Arg	Ala	Pro	Leu	Thr	Lys	Asp	Ser
	930					935					940				
Gly	Lys	Pro	Leu	His	Ile	Lys	Pro	Arg	Leu						
945					950				954						

<210> 3497

<211> 487

<212> PRT

<213> Homo sapiens

<400> 3497

Ala	Thr	Ala	Arg	Asp	Leu	Gly	Cys	Ala	Arg	Arg	Ile	Asp	Arg	Val	Val
1				5					10					15	
Met	Glu	Ser	Thr	Pro	Ser	Arg	Gly	Leu	Asn	Arg	Val	His	Leu	Gln	Cys
			20					25					30		
Arg	Asn	Leu	Gln	Glu	Phe	Leu	Gly	Gly	Leu	Ser	Pro	Gly	Val	Leu	Asp
		35					40					45			
Arg	Leu	Tyr	Gly	His	Pro	Ala	Thr	Cys	Leu	Ala	Val	Phe	Arg	Glu	Leu
	50					55					60				
Pro	Ser	Leu	Ala	Lys	Asn	Trp	Val	Met	Arg	Met	Leu	Phe	Leu	Glu	Gln
	65				70					75					80
Pro	Leu	Pro	Gln	Ala	Ala	Val	Ala	Leu	Trp	Val	Lys	Lys	Glu	Phe	Ser
			85					90						95	
Lys	Ala	Gln	Glu	Glu	Ser	Thr	Gly	Leu	Leu	Ser	Gly	Leu	Arg	Ile	Trp
		100					105						110		
His	Thr	Gln	Leu	Leu	Pro	Gly	Gly	Leu	Gln	Gly	Leu	Ile	Leu	Asn	Pro
		115					120					125			
Ile	Phe	Arg	Gln	Asn	Leu	Arg	Ile	Ala	Leu	Leu	Gly	Gly	Gly	Lys	Ala
	130					135					140				
Trp	Ser	Asp	Asp	Thr	Ser	Gln	Leu	Gly	Pro	Asp	Lys	His	Ala	Arg	Asp
145				150						155				160	
Val	Pro	Ser	Leu	Asp	Lys	Tyr	Ala	Glu	Glu	Arg	Trp	Glu	Val	Val	Leu
			165					170						175	
His	Phe	Met	Val	Gly	Ser	Pro	Ser	Ala	Ala	Val	Ser	Gln	Asp	Leu	Ala

			180					185					190				
Gln	Leu	Leu	Ser	Gln	Ala	Gly	Leu	Met	Lys	Ser	Thr	Glu	Pro	Gly	Glu		
		195					200					205					
Pro	Pro	Cys	Ile	Thr	Ser	Ala	Gly	Phe	Gln	Phe	Leu	Leu	Leu	Asp	Thr		
	210					215					220						
Pro	Ala	Gln	Leu	Trp	Tyr	Phe	Met	Leu	Gln	Tyr	Leu	Gln	Thr	Ala	Gln		
225					230					235					240		
Ser	Arg	Gly	Met	Asp	Leu	Val	Glu	Ile	Leu	Ser	Phe	Leu	Phe	Gln	Leu		
				245					250					255			
Ser	Phe	Ser	Thr	Leu	Gly	Lys	Asp	Tyr	Ser	Val	Glu	Gly	Met	Ser	Asp		
			260					265					270				
Ser	Leu	Leu	Asn	Phe	Leu	Gln	His	Leu	Arg	Glu	Phe	Gly	Leu	Val	Phe		
		275					280					285					
Gln	Arg	Lys	Arg	Lys	Ser	Arg	Arg	Tyr	Tyr	Pro	Thr	Arg	Ala	Leu	Ala		
	290					295					300						
Ile	Asn	Leu	Ser	Ser	Gly	Val	Ser	Gly	Ala	Gly	Gly	Thr	Val	His	Gln		
305					310					315					320		
Pro	Gly	Phe	Ile	Val	Val	Glu	Thr	Asn	Tyr	Arg	Leu	Tyr	Ala	Tyr	Thr		
				325					330					335			
Glu	Ser	Glu	Leu	Gln	Ile	Ala	Leu	Ile	Ala	Leu	Phe	Ser	Glu	Met	Leu		
		340						345					350				
Tyr	Pro	Phe	Pro	Asn	Met	Val	Val	Ala	Arg	Val	Thr	Arg	Glu	Ser	Val		
		355					360					365					
Gln	Gln	Ala	Ile	Ala	Ser	Gly	Ile	Thr	Ala	Gln	Gln	Ile	Ile	His	Phe		
	370					375					380						
Leu	Arg	Thr	Arg	Ala	His	Pro	Val	Met	Leu	Lys	Gln	Thr	Pro	Val	Leu		
385					390					395					400		
Pro	Pro	Thr	Ile	Thr	Asp	Gln	Ile	Arg	Leu	Trp	Glu	Leu	Glu	Arg	Asp		
				405					410					415			
Arg	Leu	Arg	Phe	Thr	Glu	Gly	Val	Leu	Tyr	Asn	Gln	Phe	Leu	Ser	Gln		
			420					425					430				
Val	Asp	Phe	Glu	Leu	Leu	Leu	Ala	His	Ala	Pro	Lys	Leu	Gly	Val	Leu		
		435					440					445					
Val	Phe	Glu	Asn	Thr	Pro	Ala	Lys	Arg	Leu	Met	Val	Val	Thr	Pro	Ala		
	450					455				460							
Gly	His	Ser	Asp	Val	Lys	Arg	Phe	Trp	Lys	Arg	Gln	Lys	His	Ser	Ser		
465					470					475					480		

<210> 3498
 <211> 203
 <212> PRT
 <213> Homo sapiens

<400> 3498

Arg	Asp	Leu	Gly	Pro	Ala	Ala	Leu	Met	Thr	Ala	Ser	Ala	Ser	Ser	Phe		
1				5					10					15			
Ser	Ser	Ser	Gln	Gly	Val	Gln	Gln	Pro	Ser	Ile	Tyr	Ser	Phe	Ser	Gln		
		20						25					30				
Ile	Thr	Arg	Ser	Leu	Phe	Leu	Ser	Asn	Gly	Val	Ala	Ala	Asn	Asp	Lys		
		35					40					45					
Leu	Leu	Leu	Ser	Ser	Asn	Arg	Ile	Thr	Ala	Ile	Val	Asn	Ala	Ser	Val		
	50					55					60						
Gly	Ser	Gly	Gln	Arg	Ile	Leu	Arg	Gly	Leu	Gln	Tyr	Ile	Lys	Val	Pro		
65					70					75				80			
Val	Thr	Asp	Ala	Arg	Asp	Ser	Arg	Leu	Tyr	Asp	Phe	Phe	Asp	Pro	Ile		
				85				90					95				
Ala	Asp	Leu	Ile	His	Thr	Val	Ser	Met	Arg	Gln	Gly	Arg	Thr	Leu	Leu		
		100						105					110				
Asn	Cys	Met	Ala	Gly	Met	Ser	Arg	Ser	Ala	Ser	Leu	Cys	Leu	Ala	Tyr		

115	120	125
Leu Met Lys Tyr His Ser Met	Ser Leu Leu Asp Ala His Thr Trp Ala	
130	135	140
Thr Lys Ser Arg Arg Pro Ile	Ile Arg Pro Asn Asn Gly Phe Trp Glu	
145	150	155
Gln Leu Ile Asn Tyr Glu Phe	Lys Leu Phe Asn Asn Asn Thr Val Arg	160
	165	170
Met Ile Asn Ser Pro Val Gly	Asn Ile Pro Asp Ile Tyr Glu Lys Asp	175
	180	185
Leu Arg Met Met Ile Ser Met		190
195	199	

<210> 3499

<211> 519

<212> PRT

<213> Homo sapiens

<400> 3499

Thr Ala Gly Phe Leu Leu Ala Pro Leu Glu Met Gln Arg Leu Leu Thr	
1 5 10 15	
Pro Val Lys Arg Ile Leu Gln Leu Thr Arg Ala Val Gln Glu Thr Ser	
20 25 30	
Leu Thr Pro Ala Arg Leu Leu Pro Val Ala His Gln Arg Phe Ser Thr	
35 40 45	
Ala Ser Ala Val Pro Leu Ala Lys Thr Asp Thr Trp Pro Lys Asp Val	
50 55 60	
Gly Ile Leu Ala Leu Glu Val Tyr Phe Pro Ala Gln Tyr Val Asp Gln	
65 70 75 80	
Thr Asp Leu Glu Lys Tyr Asn Asn Val Glu Ala Gly Lys Tyr Thr Val	
85 90 95	
Gly Leu Gly Gln Thr Arg Met Gly Phe Cys Ser Val Gln Glu Asp Ile	
100 105 110	
Asn Ser Leu Cys Leu Thr Val Val Gln Arg Leu Met Glu Arg Ile Gln	
115 120 125	
Leu Pro Trp Asp Ser Val Gly Arg Leu Glu Val Gly Thr Glu Thr Ile	
130 135 140	
Ile Asp Lys Ser Lys Ala Val Lys Thr Val Leu Met Glu Leu Phe Gln	
145 150 155 160	
Asp Ser Gly Asn Thr Asp Ile Glu Gly Ile Asp Thr Thr Asn Ala Cys	
165 170 175	
Tyr Gly Gly Thr Ala Ser Leu Phe Asn Ala Ala Asn Trp Met Glu Ser	
180 185 190	
Ser Ser Trp Asp Gly Arg Tyr Ala Met Val Val Cys Gly Asp Ile Ala	
195 200 205	
Val Tyr Pro Ser Gly Asn Ala Arg Pro Thr Gly Gly Ala Gly Ala Val	
210 215 220	
Ala Met Leu Ile Gly Pro Lys Ala Pro Leu Ala Leu Glu Arg Gly Leu	
225 230 235 240	
Arg Gly Thr His Met Glu Asn Val Tyr Asp Phe Tyr Lys Pro Asn Leu	
245 250 255	
Ala Ser Glu Tyr Pro Ile Val Asp Gly Lys Leu Ser Ile Gln Cys Tyr	
260 265 270	
Leu Arg Ala Leu Asp Arg Cys Tyr Thr Ser Tyr Arg Lys Lys Ile Gln	
275 280 285	
Asn Gln Trp Lys Gln Ala Gly Ser Asp Arg Pro Phe Thr Leu Asp Asp	
290 295 300	
Leu Gln Tyr Met Ile Phe His Thr Pro Phe Cys Lys Met Val Gln Lys	
305 310 315 320	
Ser Leu Ala Arg Leu Met Phe Asn Asp Phe Leu Ser Ala Ser Ser Asp	
325 330 335	
Thr Gln Thr Ser Leu Tyr Lys Gly Leu Glu Ala Phe Gly Gly Leu Lys	

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<210> 3500
<211> 836
<212> PRT
<213> Homo sapiens
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5228

				245					250					255			
Pro	Arg	Gly	Gly	Ile	Asn	Lys	Asp	Ser	Thr	Ser	Pro	Gly	Phe	Ser	Pro		
			260					265					270				
His	His	Met	Leu	His	Leu	Gln	Ala	Ala	Lys	Leu	Ala	Leu	Leu	Ala	Ser		
		275					280					285					
Ile	Gln	Ala	Phe	Ser	Leu	Leu	Arg	Ser	Arg	Leu	Gly	Asp	Arg	Asp	Phe		
	290				295					300							
Ser	Arg	Leu	Leu	Asp	Ile	Thr	Pro	Ala	Ser	Ser	Leu	Ser	Phe	Val	Leu		
305				310						315					320		
Asp	Thr	Thr	Gly	Ser	Met	Gly	Glu	Glu	Ile	Asn	Ala	Ala	Lys	Ile	Gln		
			325						330				335				
Ala	Arg	His	Leu	Val	Glu	Gln	Arg	Arg	Gly	Ser	Pro	Met	Glu	Pro	Val		
		340						345				350					
His	Tyr	Val	Leu	Val	Pro	Phe	His	Asp	Pro	Gly	Phe	Gly	Pro	Val	Phe		
	355						360					365					
Thr	Thr	Ser	Asp	Pro	Asp	Ser	Phe	Trp	Gln	Gln	Leu	Asn	Glu	Ile	His		
	370				375						380						
Ala	Leu	Gly	Gly	Gly	Asp	Glu	Pro	Glu	Met	Cys	Leu	Ser	Ala	Leu	Gln		
385				390						395					400		
Leu	Ala	Leu	Leu	His	Thr	Pro	Pro	Leu	Ser	Asp	Ile	Phe	Val	Phe	Thr		
			405					410					415				
Asp	Ala	Ser	Pro	Lys	Asp	Ala	Phe	Leu	Thr	Asn	Gln	Val	Glu	Ser	Leu		
		420					425					430					
Thr	Gln	Glu	Arg	Arg	Cys	Arg	Val	Thr	Phe	Leu	Val	Thr	Glu	Asp	Thr		
	435					440					445						
Ser	Arg	Val	Gln	Gly	Arg	Ala	Arg	Arg	Glu	Ile	Leu	Ser	Pro	Leu	Arg		
	450				455					460							
Phe	Glu	Pro	Tyr	Lys	Ala	Val	Ala	Leu	Ala	Ser	Gly	Gly	Glu	Val	Ile		
465				470					475						480		
Phe	Thr	Lys	Asp	Gln	His	Ile	Arg	Asp	Val	Ala	Ala	Ile	Val	Gly	Glu		
			485				490					495					
Ser	Met	Ala	Ala	Leu	Val	Thr	Leu	Pro	Leu	Asp	Pro	Pro	Val	Val	Val		
		500					505					510					
Pro	Gly	Gln	Pro	Leu	Val	Phe	Ser	Val	Asp	Gly	Leu	Leu	Gln	Lys	Ile		
	515					520						525					
Thr	Val	Arg	Ile	His	Gly	Asp	Ile	Ser	Ser	Phe	Trp	Ile	Lys	Asn	Pro		
	530				535						540						
Ala	Gly	Val	Ser	Gln	Gly	Gln	Glu	Glu	Gly	Gly	Gly	Pro	Leu	Gly	His		
545				550					555						560		
Thr	Arg	Arg	Phe	Gly	Gln	Phe	Trp	Met	Val	Thr	Met	Asp	Asp	Pro	Pro		
			565				570					575					
Gln	Thr	Gly	Thr	Trp	Glu	Ile	Gln	Val	Thr	Ala	Glu	Asp	Thr	Pro	Gly		
		580					585					590					
Val	Arg	Val	Gln	Ala	Gln	Thr	Ser	Leu	Asp	Phe	Leu	Phe	His	Phe	Gly		
	595					600					605						
Ile	Pro	Met	Glu	Asp	Gly	Pro	His	Pro	Gly	Leu	Tyr	Pro	Leu	Thr	Gln		
	610				615					620							
Pro	Val	Ala	Gly	Leu	Gln	Thr	Gln	Leu	Leu	Val	Glu	Val	Thr	Gly	Leu		
625				630					635						640		
Gly	Ser	Arg	Ala	Asn	Pro	Gly	Asp	Pro	Gln	Pro	His	Phe	Ser	His	Val		
			645				650					655					
Ile	Leu	Arg	Gly	Val	Pro	Glu	Gly	Ala	Glu	Leu	Gly	Gln	Val	Pro	Leu		
		660					665					670					
Glu	Pro	Val	Gly	Pro	Pro	Glu	Arg	Gly	Leu	Leu	Ala	Ala	Ser	Leu	Ser		
	675					680					685						
Pro	Thr	Leu	Leu	Ser	Thr	Pro	Arg	Pro	Phe	Ser	Leu	Glu	Leu	Ile	Gly		
	690				695						700						
Gln	Asp	Ala	Ala	Gly	Arg	Arg	Leu	His	Arg	Ala	Ala	Pro	Gln	Pro	Ser		
705				710					715						720		
Thr	Val	Val	Pro	Val	Leu	Leu	Glu	Leu	Ser	Gly	Pro	Ser	Gly	Phe	Leu		
			725				730					735					
Ala	Pro	Gly	Ser	Lys	Val	Pro	Leu	Ser	Leu	Arg	Ile	Ala	Ser	Phe	Ser		
		740					745					750					
Gly	Pro	Gln	Asp	Leu	Asp	Leu	Arg	Thr	Phe	Val	Asn	Pro	Ser	Phe	Ser		

755	760	765
Leu Thr Ser Asn Leu Ser Arg Ala His Leu Glu Leu Asn Glu Ser Ala		
770	775	780
Trp Gly Arg Leu Trp Leu Glu Val Pro Asp Ser Ala Ala Pro Asp Ser		
785	790	795
Val Val Met Val Thr Val Thr Ala Gly Gly Arg Glu Ala Asn Pro Val		
805	810	815
Pro Pro Thr His Ala Phe Leu Arg Leu Leu Val Ser Ala Pro Ala Pro		
820	825	830
Gln Asp Arg His		
835 836		

<210> 3501
 <211> 1526
 <212> PRT
 <213> Homo sapiens

<400> 3501

Arg Arg Ala His Pro Ser His Ser Arg Leu Ser Pro Tyr Leu Ser Val	1	5	10	15
Ser Arg Asp Pro Tyr Phe Phe Val Thr Val Ser Arg Thr Ile Leu Thr	20	25	30	
Leu Ser Ala Pro Ala Pro Pro Arg Arg Thr Pro Ala Pro Ser Met Gly	35	40	45	
Thr Ala Leu Leu Gln Arg Gly Gly Cys Phe Leu Leu Cys Leu Ser Leu	50	55	60	
Leu Leu Leu Gly Cys Trp Ala Glu Leu Gly Ser Gly Leu Glu Phe Pro	65	70	75	80
Gly Ala Glu Gly Gln Trp Thr Arg Phe Pro Lys Trp Asn Ala Cys Cys	85	90	95	
Glu Ser Glu Met Ser Phe Gln Leu Lys Thr Arg Ser Ala Arg Gly Leu	100	105	110	
Val Leu Tyr Phe Asp Asp Glu Gly Phe Cys Asp Phe Leu Glu Leu Ile	115	120	125	
Leu Thr Arg Gly Gly Arg Leu Gln Leu Ser Phe Ser Ile Phe Cys Ala	130	135	140	
Glu Pro Ala Thr Leu Leu Ala Asp Thr Pro Val Asn Asp Gly Ala Trp	145	150	155	160
His Ser Val Arg Ile Arg Arg Gln Phe Arg Asn Thr Thr Leu Phe Ile	165	170	175	
Asp Gln Val Glu Ala Lys Trp Val Glu Val Lys Ser Lys Arg Arg Asp	180	185	190	
Met Thr Val Phe Ser Gly Leu Phe Val Gly Gly Leu Pro Pro Glu Leu	195	200	205	
Arg Ala Ala Ala Leu Lys Leu Thr Leu Ala Ser Val Arg Glu Arg Glu	210	215	220	
Pro Phe Lys Gly Trp Ile Arg Asp Val Arg Val Asn Ser Ser Gln Val	225	230	235	240
Leu Pro Val Asp Ser Gly Glu Val Lys Leu Asp Asp Glu Pro Pro Asn	245	250	255	
Ser Gly Gly Gly Ser Pro Cys Glu Ala Gly Glu Glu Gly Glu Gly Gly	260	265	270	
Val Cys Leu Asn Gly Gly Val Cys Ser Val Val Asp Asp Gln Ala Val	275	280	285	
Cys Asp Cys Ser Arg Thr Gly Phe Arg Gly Lys Asp Cys Ser Gln Glu	290	295	300	
Asp Asn Asn Val Glu Gly Leu Ala His Leu Met Met Gly Asp Gln Gly	305	310	315	320
Lys Glu Glu Tyr Ile Ala Thr Phe Lys Gly Ser Glu Tyr Phe Cys Tyr	325	330	335	
Asp Leu Ser Gln Asn Pro Ile Gln Ser Ser Ser Asp Glu Ile Thr Leu				

5231

850	855	860
Leu Thr Val Asp Asp Gln	Gln Ala Met Thr Gly	Gln Met Ala Gly Asp
865	870	875
His Thr Arg Leu Glu Phe	His Asn Ile Glu Thr	Gly Ile Ile Thr Glu
885	890	895
Arg Arg Tyr Leu Ser Ser	Val Pro Ser Asn Phe	Ile Gly His Leu Gln
900	905	910
Ser Leu Thr Phe Asn Gly	Met Ala Tyr Ile Asp	Leu Cys Lys Asn Gly
915	920	925
Asp Ile Asp Tyr Cys Glu	Leu Asn Ala Arg Phe	Gly Phe Arg Asn Ile
930	935	940
Ile Ala Asp Pro Val Thr	Phe Lys Thr Lys Ser	Ser Tyr Val Ala Leu
945	950	955
Ala Thr Leu Gln Ala Tyr	Thr Ser Met His Leu	Phe Phe Gln Phe Lys
965	970	975
Thr Thr Ser Leu Asp Gly	Leu Ile Leu Tyr Asn	Ser Gly Asp Gly Asn
980	985	990
Asp Phe Ile Val Val Glu	Leu Val Lys Gly Tyr	Leu His Tyr Val Phe
995	1000	1005
Asp Leu Gly Asn Gly Ala	Asn Leu Ile Lys Gly	Ser Ser Asn Lys Pro
1010	1015	1020
Leu Asn Asp Asn Gln Trp	His Asn Val Met Ile	Ser Arg Asp Thr Ser
1025	1030	1035
Asn Leu His Thr Val Lys	Ile Asp Thr Lys Ile	Thr Thr Gln Ile Thr
1045	1050	1055
Ala Gly Ala Arg Asn Leu	Asp Leu Lys Ser Asp	Leu Tyr Ile Gly Gly
1060	1065	1070
Val Ala Lys Glu Thr Tyr	Lys Ser Leu Pro Lys	Leu Val His Ala Lys
1075	1080	1085
Glu Gly Phe Gln Gly Cys	Leu Ala Ser Val Asp	Leu Asn Gly Arg Leu
1090	1095	1100
Pro Asp Leu Ile Ser Asp	Gly Ser Phe Ser Cys	Asn Gly Thr Asp Ser
1105	1110	1115
Arg Arg Gly Met Trp Lys	Gly Pro Ser Thr Thr	Cys Gln Glu Asp Ser
1125	1130	1135
Cys Ser Asn Gln Gly Val	Cys Leu Gln Gln Trp	Asp Gly Phe Ser Cys
1140	1145	1150
Asp Cys Ser Met Thr Ser	Phe Ser Gly Pro Leu	Cys Asn Asp Pro Gly
1155	1160	1165
Thr Thr Tyr Ile Phe Ser	Lys Gly Gly Gly Gln	Ile Thr Tyr Lys Trp
1170	1175	1180
Pro Pro Asn Asp Arg Pro	Ser Thr Arg Ala Asp	Arg Leu Ala Ile Gly
1185	1190	1195
Phe Ser Thr Val Gln Lys	Glu Ala Val Leu Val	Arg Val Asp Ser Ser
1205	1210	1215
Ser Gly Leu Gly Asp Tyr	Leu Glu Leu His Ile	His Gln Gly Lys Ile
1220	1225	1230
Gly Val Lys Phe Asn Val	Gly Thr Asp Asp Ile	Ala Ile Glu Glu Ser
1235	1240	1245
Asn Ala Ile Ile Asn Asp	Gly Lys Tyr His Val	Val Arg Phe Thr Arg
1250	1255	1260
Ser Gly Gly Asn Ala Thr	Leu Gln Val Asp Ser	Trp Pro Val Ile Glu
1265	1270	1275
Arg Tyr Pro Ala Gly Arg	Gln Leu Thr Ile Phe	Asn Ser Gln Ala Thr
1285	1290	1295
Ile Ile Ile Gly Gly Lys	Glu Gln Gly Gln Pro	Phe Gln Gly Gln Leu
1300	1305	1310
Ser Gly Leu Tyr Tyr Asn	Gly Leu Lys Val Leu	Asn Met Ala Ala Glu
1315	1320	1325
Asn Asp Ala Asn Ile Ala	Ile Val Gly Asn Val	Arg Leu Val Gly Glu
1330	1335	1340
Val Pro Ser Ser Met Thr	Thr Thr Glu Ser Thr	Ala Thr Ala Met Gln Ser
1345	1350	1355
Glu Met Ser Thr Ser Ile	Met Glu Thr Thr Thr	Leu Ala Thr Ser

1365 1370 1375
 Thr Ala Arg Arg Gly Lys Pro Pro Thr Lys Glu Pro Ile Ser Gln Thr
 1380 1385 1390
 Thr Asp Asp Ile Leu Val Ala Ser Ala Glu Cys Pro Ser Asp Asp Glu
 1395 1400 1405
 Asp Ile Asp Pro Cys Glu Pro Ser Ser Gly Gly Leu Ala Asn Pro Thr
 1410 1415 1420
 Arg Ala Gly Gly Arg Glu Pro Tyr Pro Gly Ser Ala Glu Val Ile Arg
 1425 1430 1435 1440
 Glu Ser Ser Ser Thr Thr Gly Met Val Val Gly Ile Val Ala Ala Ala
 1445 1450 1455
 Ala Leu Cys Ile Leu Ile Leu Leu Tyr Ala Met Tyr Lys Tyr Arg Asn
 1460 1465 1470
 Arg Asp Glu Gly Ser Tyr His Val Asp Glu Ser Arg Asn Tyr Ile Ser
 1475 1480 1485
 Asn Ser Ala Gln Ser Asn Gly Ala Val Val Lys Glu Lys Gln Pro Ser
 1490 1495 1500
 Ser Ala Lys Ser Ser Asn Lys Asn Lys Lys Asn Lys Asp Lys Glu Tyr
 1505 1510 1515 1520
 Tyr Val
 1522

<210> 3502
 <211> 110
 <212> PRT
 <213> Homo sapiens

<400> 3502
 Lys Pro Ala His Leu Pro Phe Thr Val Ile Ile Met Pro Lys Arg Lys
 1 5 10 15
 Pro Ser Glu Gly Ala Met Ser Asp Lys Val Lys Ala Lys Phe Glu Leu
 20 25 30
 Gln Arg Arg Ser Ala Gly Leu Phe Ser Lys Pro Thr Pro Pro Lys Pro
 35 40 45
 Glu Thr Arg Pro Lys Lys Asp Pro Ala Asn Gln Arg Gln Lys Leu Pro
 50 55 60
 Lys Val Arg Lys Gly Lys Ala Asp Ala Ser Lys Glu Gly Asn Ser Pro
 65 70 75 80
 Ala Glu Glu Arg Cys Ser Met Val Gln Thr Gln Lys Val Glu Gly Trp
 85 90 95
 Arg Ser Gly Ser Glu Leu Pro Val Ala Leu Ser Phe
 100 105 108

<210> 3503
 <211> 1105
 <212> PRT
 <213> Homo sapiens

<400> 3503
 Ser Gly Gly Arg Gly Pro Val Arg Val Arg Ser Glu Gln Leu Ser Pro
 1 5 10 15
 Ser Ala Glu Gln Val Ser Gln Ile Ser Gln Ile Ser Leu Gly Arg Arg
 20 25 30
 Pro Leu Ser Ser Leu Pro Pro Pro Ser Arg Ala Leu Ala Pro Thr
 35 40 45
 Arg Ala Pro Asp Thr Ala Leu Thr Ile Met Glu Val Ala Glu Val Glu
 50 55 60
 Ser Pro Leu Asn Pro Ser Cys Lys Ile Met Thr Phe Arg Pro Ser Met

65					70					75				80	
Glu	Glu	Phe	Arg	Glu	Phe	Asn	Lys	Tyr	Leu	Ala	Tyr	Met	Glu	Ser	Lys
				85					90					95	
Gly	Ala	His	Arg	Ala	Gly	Leu	Ala	Lys	Val	Ile	Pro	Pro	Lys	Glu	Trp
			100					105					110		
Lys	Pro	Arg	Gln	Cys	Tyr	Asp	Asp	Ile	Asp	Asn	Leu	Leu	Ile	Pro	Ala
		115				120					125				
Pro	Ile	Gln	Gln	Met	Val	Thr	Gly	Gln	Ser	Gly	Leu	Phe	Thr	Gln	Tyr
	130					135					140				
Asn	Ile	Gln	Lys	Lys	Ala	Met	Thr	Val	Lys	Glu	Phe	Arg	Gln	Leu	Ala
145					150					155					160
Asn	Ser	Gly	Lys	Tyr	Cys	Thr	Pro	Arg	Tyr	Leu	Asp	Tyr	Glu	Asp	Leu
			165					170						175	
Glu	Arg	Lys	Tyr	Trp	Lys	Asn	Leu	Thr	Phe	Val	Ala	Pro	Ile	Tyr	Gly
		180						185					190		
Ala	Asp	Ile	Asn	Gly	Ser	Ile	Tyr	Asp	Glu	Gly	Val	Asp	Glu	Trp	Asn
	195						200					205			
Ile	Ala	Arg	Leu	Asn	Thr	Val	Leu	Asp	Val	Val	Glu	Glu	Glu	Cys	Gly
	210					215					220				
Ile	Ser	Ile	Glu	Gly	Val	Asn	Thr	Pro	Tyr	Leu	Tyr	Phe	Gly	Met	Trp
225					230					235					240
Lys	Thr	Thr	Phe	Ala	Trp	His	Thr	Glu	Asp	Met	Asp	Leu	Tyr	Ser	Ile
			245					250						255	
Asn	Tyr	Leu	His	Phe	Gly	Glu	Pro	Lys	Ser	Trp	Tyr	Ala	Ile	Pro	Pro
		260						265					270		
Glu	His	Gly	Lys	Arg	Leu	Glu	Arg	Leu	Ala	Gln	Gly	Phe	Phe	Pro	Ser
	275						280					285			
Ser	Ser	Gln	Gly	Cys	Asp	Ala	Phe	Leu	Arg	His	Lys	Met	Thr	Leu	Ile
	290					295					300				
Ser	Pro	Ser	Val	Leu	Lys	Lys	Tyr	Gly	Ile	Pro	Phe	Asp	Lys	Ile	Thr
305					310					315					320
Gln	Glu	Ala	Gly	Glu	Phe	Met	Ile	Thr	Phe	Pro	Tyr	Gly	Tyr	His	Ala
			325						330					335	
Gly	Phe	Asn	His	Gly	Phe	Asn	Cys	Ala	Glu	Ser	Thr	Asn	Phe	Ala	Thr
		340						345					350		
Val	Arg	Trp	Ile	Asp	Tyr	Gly	Lys	Val	Ala	Lys	Leu	Cys	Thr	Cys	Arg
	355						360					365			
Lys	Asp	Met	Val	Lys	Ile	Ser	Met	Asp	Ile	Phe	Val	Arg	Lys	Phe	Gln
	370					375					380				
Pro	Asp	Arg	Tyr	Gln	Leu	Trp	Lys	Gln	Gly	Lys	Asp	Ile	Tyr	Thr	Ile
385					390					395					400
Asp	His	Thr	Lys	Pro	Thr	Pro	Ala	Ser	Thr	Pro	Glu	Val	Lys	Ala	Trp
			405						410					415	
Leu	Gln	Arg	Arg	Arg	Lys	Val	Arg	Lys	Ala	Ser	Arg	Ser	Phe	Gln	Cys
		420						425					430		
Ala	Arg	Ser	Thr	Ser	Lys	Arg	Pro	Lys	Ala	Asp	Glu	Glu	Glu	Glu	Val
	435						440					445			
Ser	Asp	Glu	Val	Asp	Gly	Ala	Glu	Val	Pro	Asn	Pro	Asp	Ser	Val	Thr
	450					455					460				
Asp	Asp	Leu	Lys	Val	Ser	Glu	Lys	Ser	Glu	Ala	Ala	Val	Lys	Leu	Arg
465					470					475					480
Asn	Thr	Glu	Ala	Ser	Ser	Glu	Glu	Glu	Ser	Ser	Ala	Ser	Arg	Met	Gln
			485					490						495	
Val	Glu	Gln	Asn	Leu	Ser	Asp	His	Ile	Lys	Leu	Ser	Gly	Asn	Ser	Cys
		500						505					510		
Leu	Ser	Thr	Ser	Val	Thr	Glu	Asp	Ile	Lys	Thr	Glu	Asp	Asp	Lys	Ala
	515						520					525			
Tyr	Ala	Tyr	Arg	Ser	Val	Pro	Ser	Ile	Ser	Ser	Glu	Ala	Asp	Asp	Ser
	530					535					540				
Ile	Pro	Leu	Ser	Thr	Gly	Tyr	Glu	Lys	Pro	Glu	Lys	Ser	Asp	Pro	Ser
545					550					555					560
Glu	Leu	Ser	Trp	Pro	Lys	Ser	Pro	Glu	Ser	Cys	Ser	Ser	Val	Ala	Glu
			565					570						575	
Ser	Asn	Gly	Val	Leu	Thr	Glu	Gly	Glu	Glu	Ser	Asp	Val	Glu	Ser	His

5235

1090

1095

1100

1104

<210> 3504
 <211> 329
 <212> PRT
 <213> Homo sapiens

<400> 3504
 Arg Gly Glu Glu Gln Phe Asp Ala Glu Phe Arg Arg Phe Ala Cys Leu
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 Gly Phe Gly Glu Arg Leu Gln Glu Phe Ser Arg Leu Leu Arg Ala Val
 20 25 30
 His Arg Ser Arg Ala Trp Thr Cys Tyr Leu Ala Ile Arg Met Leu Met
 35 40 45
 Ala Thr Cys Cys Pro Ser Pro Thr Thr Thr Ala Cys Thr Gly Pro Trp
 50 55 60
 Gln Arg Ala Pro Pro Leu Arg Leu Leu Val Gln Lys Arg Glu Ala Asp
 65 70 75 80
 Ser Ser Gly Leu Ala Phe Ala Ser Asn Ser Leu Gln Arg Arg Lys Lys
 85 90 95
 Gly Leu Leu Leu Arg Pro Val Ala Pro Leu Arg Thr Arg Pro Pro Leu
 100 105 110
 Leu Ile Ser Leu Pro Gln Asp Phe Arg Gln Val Ser Ser Val Ile Asp
 115 120 125
 Val Asp Leu Leu Pro Glu Thr His Arg Arg Val Arg Leu His Lys His
 130 135 140
 Gly Ser Asp Arg Pro Leu Gly Phe Tyr Ile Arg Asp Gly Met Ser Val
 145 150 155 160
 Arg Val Ala Pro Gln Gly Leu Glu Arg Val Pro Gly Ile Phe Ile Ser
 165 170 175
 Arg Leu Val Arg Gly Gly Leu Ala Glu Ser Thr Gly Leu Leu Ala Val
 180 185 190
 Ser Asp Glu Ile Leu Glu Val Asn Gly Ile Glu Val Ala Gly Lys Thr
 195 200 205
 Leu Asn Gln Val Thr Asp Met Met Val Ala Asn Ser His Asn Leu Ile
 210 215 220
 Val Thr Val Lys Pro Ala Asn Gln Arg Asn Asn Val Val Arg Gly Ala
 225 230 235 240
 Ser Gly Arg Leu Thr Gly Pro Pro Ser Ala Gly Pro Gly Pro Ala Glu
 245 250 255
 Pro Asp Ser Asp Asp Asp Ser Ser Asp Leu Val Ile Glu Asn Arg Gln
 260 265 270
 Pro Pro Ser Ser Asn Gly Leu Ser Gln Gly Pro Pro Cys Trp Asp Leu
 275 280 285
 His Pro Gly Cys Arg His Pro Gly Thr Arg Ser Ser Leu Pro Ser Leu
 290 295 300
 Asp Asp Gln Glu Gln Ala Ser Ser Gly Trp Gly Ser Arg Ile Arg Gly
 305 310 315 320
 Asp Gly Ser Gly Phe Ser Leu
 325 327

<210> 3505
 <211> 972
 <212> PRT
 <213> Homo sapiens

<400> 3505

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Ser Cys Arg Ser Ala Thr Ser Gln Ser Gly Cys Gly Gly Gly Arg Ser
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Trp Leu Cys Ser Ser Leu Lys Met Ala Ala Gln Pro Pro Arg Gly Ile
      20      25      30
Arg Leu Ser Ala Leu Cys Pro Lys Phe Leu His Thr Asn Ser Thr Ser
      35      40      45
His Thr Trp Pro Phe Ser Ala Val Ala Glu Leu Ile Asp Asn Ala Tyr
      50      55      60
Asp Pro Asp Val Asn Ala Lys Gln Ile Trp Ile Asp Lys Thr Val Ile
      65      70      75      80
Asn Asp His Ile Cys Leu Thr Phe Thr Asp Asn Gly Asn Gly Met Thr
      85      90      95
Ser Asp Lys Leu His Lys Met Leu Ser Phe Gly Phe Ser Asp Lys Val
      100      105      110
Thr Met Asn Gly His Val Pro Val Gly Leu Tyr Gly Asn Gly Phe Lys
      115      120      125
Ser Gly Ser Met Arg Leu Gly Lys Asp Ala Ile Val Phe Thr Lys Asn
      130      135      140
Gly Glu Ser Met Ser Val Gly Leu Leu Ser Gln Thr Tyr Leu Glu Val
      145      150      155      160
Ile Lys Ala Glu His Val Val Val Pro Ile Val Ala Phe Asn Lys His
      165      170      175
Arg Gln Met Ile Asn Leu Ala Glu Ser Lys Ala Ser Leu Ala Ala Ile
      180      185      190
Leu Glu His Ser Leu Phe Ser Thr Glu Gln Lys Leu Leu Ala Glu Leu
      195      200      205
Asp Ala Ile Ile Gly Lys Lys Gly Thr Arg Ile Ile Ile Trp Asn Leu
      210      215      220
Arg Ser Tyr Lys Asn Ala Thr Glu Phe Asp Phe Glu Lys Asp Lys Tyr
      225      230      235      240
Asp Ile Arg Ile Pro Glu Asp Leu Asp Glu Ile Thr Gly Lys Lys Gly
      245      250      255
Tyr Lys Lys Gln Glu Arg Met Asp Gln Ile Ala Pro Glu Ser Asp Tyr
      260      265      270
Ser Leu Arg Ala Tyr Cys Ser Ile Leu Tyr Leu Lys Pro Arg Met Gln
      275      280      285
Ile Ile Leu Arg Gly Gln Lys Val Lys Thr Gln Leu Val Ser Lys Ser
      290      295      300
Leu Ala Tyr Ile Glu Arg Asp Val Tyr Arg Pro Lys Phe Leu Ser Lys
      305      310      315      320
Thr Val Arg Ile Thr Phe Gly Phe Asn Cys Arg Asn Lys Asp His Tyr
      325      330      335
Gly Ile Met Met Tyr His Arg Asn Arg Leu Ile Lys Ala Tyr Glu Lys
      340      345      350
Val Gly Cys Gln Leu Arg Ala Asn Asn Met Gly Val Gly Val Val Gly
      355      360      365
Ile Ile Glu Cys Asn Phe Leu Lys Pro Thr His Asn Lys Gln Asp Phe
      370      375      380
Asp Tyr Thr Asn Glu Tyr Arg Leu Thr Ile Thr Ala Leu Gly Glu Lys
      385      390      395      400
Leu Asn Asp Tyr Trp Asn Glu Met Lys Val Lys Lys Asn Thr Glu Tyr
      405      410      415
Pro Leu Asn Leu Pro Val Glu Asp Ile Gln Lys Arg Pro Asp Gln Thr
      420      425      430
Trp Val Gln Cys Asp Ala Cys Leu Lys Trp Arg Lys Leu Pro Asp Gly
      435      440      445
Met Asp Gln Leu Pro Glu Lys Trp Tyr Cys Ser Asn Asn Pro Asp Pro
      450      455      460
Gln Phe Arg Asn Cys Glu Val Pro Glu Glu Pro Glu Asp Glu Asp Leu
      465      470      475      480
Val His Pro Thr Tyr Glu Lys Thr Tyr Lys Lys Thr Asn Lys Glu Lys
      485      490      495
Phe Arg Ile Arg Gln Pro Glu Met Ile Pro Arg Ile Asn Ala Glu Leu

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			500					505				510			
Leu	Phe	Arg	Pro	Thr	Ala	Leu	Ser	Thr	Pro	Ser	Phe	Ser	Ser	Pro	Lys
		515					520					525			
Glu	Ser	Val	Ser	Lys	Arg	Arg	His	Leu	Ser	Glu	Gly	Thr	Asn	Ser	Tyr
		530					535					540			
Ala	Thr	Arg	Leu	Leu	Asn	Asn	His	Gln	Val	Pro	Pro	Gln	Ser	Glu	Pro
545					550					555					560
Glu	Ser	Asn	Ser	Leu	Lys	Arg	Arg	Leu	Ser	Thr	Arg	Ser	Ser	Ile	Leu
			565						570					575	
Asn	Ala	Lys	Asn	Arg	Arg	Leu	Ser	Ser	Gln	Phe	Glu	Asn	Ser	Val	Tyr
			580					585					590		
Lys	Gly	Asp	Asp	Asp	Asp	Glu	Asp	Val	Ile	Ile	Leu	Glu	Glu	Asn	Ser
		595					600					605			
Thr	Pro	Lys	Pro	Ala	Val	Asp	His	Asp	Ile	Asp	Met	Lys	Ser	Glu	Gln
		610					615				620				
Ser	His	Val	Glu	Gln	Gly	Gly	Val	Gln	Val	Glu	Phe	Val	Gly	Asp	Ser
625					630					635					640
Glu	Pro	Cys	Gly	Gln	Thr	Gly	Ser	Thr	Ser	Thr	Ser	Ser	Ser	Arg	Cys
				645					650					655	
Asp	Gln	Gly	Asn	Thr	Ala	Ala	Thr	Gln	Thr	Glu	Val	Pro	Ser	Leu	Val
			660					665					670		
Val	Lys	Lys	Glu	Glu	Thr	Val	Glu	Asp	Glu	Ile	Asp	Val	Arg	Asn	Asp
		675					680					685			
Ala	Val	Ile	Leu	Pro	Ser	Cys	Val	Glu	Ala	Glu	Ala	Lys	Ile	His	Glu
		690				695					700				
Thr	Gln	Glu	Thr	Thr	Asp	Lys	Ser	Ala	Asp	Asp	Ala	Gly	Cys	Gln	Leu
705					710					715					720
Gln	Glu	Leu	Arg	Asn	Gln	Leu	Leu	Leu	Val	Thr	Glu	Glu	Lys	Glu	Asn
				725					730					735	
Tyr	Lys	Arg	Gln	Cys	His	Met	Phe	Thr	Asp	Gln	Ile	Lys	Val	Leu	Gln
			740					745					750		
Gln	Arg	Ile	Leu	Glu	Met	Asn	Asp	Lys	Tyr	Val	Lys	Lys	Glu	Thr	Cys
		755					760					765			
His	Gln	Ser	Thr	Glu	Thr	Asp	Ala	Val	Phe	Leu	Leu	Glu	Ser	Ile	Asn
		770				775					780				
Gly	Lys	Ser	Glu	Ser	Pro	Asp	His	Met	Val	Ser	Gln	Tyr	Gln	Gln	Ala
785					790					795					800
Leu	Glu	Glu	Ile	Glu	Arg	Leu	Lys	Lys	Gln	Cys	Ser	Ala	Leu	Gln	His
				805					810					815	
Val	Lys	Ala	Glu	Cys	Ser	Gln	Cys	Ser	Asn	Asn	Glu	Ser	Lys	Ser	Glu
		820						825					830		
Met	Asp	Glu	Met	Ala	Val	Gln	Leu	Asp	Asp	Val	Phe	Arg	Gln	Leu	Asp
		835					840					845			
Lys	Cys	Ser	Ile	Glu	Arg	Asp	Gln	Tyr	Lys	Ser	Glu	Val	Glu	Leu	Leu
		850				855					860				
Glu	Met	Glu	Lys	Ser	Gln	Ile	Arg	Ser	Gln	Cys	Glu	Glu	Leu	Lys	Thr
865					870					875					880
Glu	Val	Glu	Gln	Leu	Lys	Ser	Thr	Asn	Gln	Gln	Thr	Ala	Thr	Asp	Val
				885					890					895	
Ser	Thr	Ser	Ser	Asn	Ile	Glu	Glu	Ser	Val	Asn	His	Met	Asp	Gly	Glu
			900					905					910		
Ser	Leu	Lys	Leu	Arg	Ser	Leu	Arg	Val	Asn	Val	Gly	Gln	Leu	Leu	Ala
		915					920					925			
Met	Ile	Val	Pro	Asp	Leu	Asp	Leu	Gln	Gln	Val	Asn	Tyr	Asp	Val	Asp
		930				935					940				
Val	Val	Asp	Glu	Ile	Leu	Gly	Gln	Val	Val	Glu	Gln	Met	Ser	Glu	Ile
945					950					955					960
Ser	Ser	Thr													
		963													

<210> 3506

<211> 706

<212> PRT

<213> Homo sapiens

<400> 3506

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Arg Pro Pro Glu Ala Gly Gly Arg Tyr Arg Ala Gly Gly Arg Arg Gln
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Ala Ala Lys Pro Ser Arg Pro Pro Leu Pro Ser Arg Arg Arg Leu Pro
          20          25          30
Gln Gly Gly Arg Thr Arg Arg Ala Met Asp Arg Pro Ala Ala Ala Ala
          35          40          45
Ala Ala Gly Cys Glu Gly Gly Gly Gly Pro Asn Pro Gly Pro Ala Gly
          50          55          60
Gly Arg Arg Pro Pro Arg Ala Ala Gly Gly Ala Thr Ala Gly Ser Arg
          65          70          75          80
Gln Pro Ser Val Glu Thr Leu Asp Ser Pro Thr Gly Ser His Val Glu
          85          90          95
Trp Cys Lys Gln Leu Ile Ala Ala Thr Ile Ser Ser Gln Ile Ser Gly
          100          105          110
Ser Val Thr Ser Glu Asn Val Ser Arg Asp Tyr Lys Ala Leu Arg Asp
          115          120          125
Gly Asn Lys Leu Ala Gln Met Glu Glu Ala Pro Leu Phe Pro Gly Glu
          130          135          140
Ser Ile Lys Ala Ile Val Lys Asp Val Met Tyr Ile Cys Pro Phe Met
          145          150          155          160
Gly Ala Val Ser Gly Thr Leu Thr Val Thr Asp Phe Lys Leu Tyr Phe
          165          170          175
Lys Asn Val Glu Arg Asp Pro His Phe Ile Leu Asp Val Pro Leu Gly
          180          185          190
Val Ile Ser Arg Val Glu Lys Ile Gly Ala Gln Ser His Gly Asp Asn
          195          200          205
Ser Cys Gly Ile Glu Ile Val Cys Lys Asp Met Arg Asn Leu Arg Leu
          210          215          220
Ala Tyr Lys Gln Glu Glu Gln Ser Lys Leu Gly Ile Phe Glu Asn Leu
          225          230          235          240
Asn Lys His Ala Phe Pro Leu Ser Asn Gly Gln Ala Leu Phe Ala Phe
          245          250          255
Ser Tyr Lys Glu Lys Phe Pro Ile Asn Gly Trp Lys Val Tyr Asp Pro
          260          265          270
Val Ser Glu Tyr Lys Arg Gln Gly Leu Pro Asn Glu Ser Trp Lys Ile
          275          280          285
Ser Lys Ile Asn Ser Asn Tyr Glu Phe Cys Asp Thr Tyr Pro Ala Ile
          290          295          300
Ile Val Val Pro Thr Ser Val Lys Asp Asp Asp Leu Ser Lys Val Ala
          305          310          315          320
Val Phe Leu Ala Lys Gly Arg Val Pro Val Leu Ser Trp Ile His Pro
          325          330          335
Glu Ser Gln Ala Thr Ile Thr Arg Cys Ser Gln Pro Leu Val Gly Pro
          340          345          350
Asn Asp Lys Arg Cys Lys Glu Asp Glu Lys Tyr Leu Gln Thr Ile Met
          355          360          365
Asp Ala Asn Ala Gln Ser His Lys Leu Ile Ile Phe Asp Ala Arg Gln
          370          375          380
Asn Ser Val Ala Asp Thr Asn Lys Thr Lys Gly Gly Gly Tyr Glu Ser
          385          390          395          400
Glu Ser Ala Tyr Pro Asn Ala Glu Leu Val Phe Leu Glu Ile His Asn
          405          410          415
Ile His Val Met Arg Glu Ser Leu Arg Lys Leu Lys Glu Ile Val Tyr
          420          425          430
Pro Ser Ile Asp Glu Ala Arg Trp Leu Ser Asn Val Asp Gly Thr His
          435          440          445
Trp Leu Glu Tyr Ile Arg Met Leu Leu Ala Gly Ala Val Arg Ile Ala
          450          455          460
Asp Lys Ile Glu Ser Gly Lys Thr Ser Val Val Val His Cys Ser Asp

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465		470		475		480
Gly Trp Asp Arg Thr	Ala Gln Leu Thr	Ser Leu Ala Met Leu	Met Leu			
	485	490	495			
Asp Ser Tyr Tyr	Arg Thr Ile Lys	Gly Phe Glu Thr	Leu Val Glu Lys			
	500	505	510			
Glu Trp Ile Ser Phe	Gly His Arg Phe	Ala Leu Arg Val	Gly His Gly			
	515	520	525			
Asn Asp Asn His Ala	Asp Ala Asp Arg	Ser Pro Ile Phe	Leu Gln Phe			
	530	535	540			
Val Asp Cys Val Trp	Gln Met Thr Arg	Gln Phe Pro Ser	Ala Phe Glu			
545	550	555	560			
Phe Asn Glu Leu Phe	Leu Ile Thr Ile	Leu Asp His Leu	Tyr Ser Cys			
	565	570	575			
Leu Phe Gly Thr Phe	Leu Cys Asn Cys	Glu Gln Gln Arg	Phe Lys Glu			
	580	585	590			
Asp Val Tyr Thr Lys	Thr Ile Ser Leu	Trp Ser Tyr Ile	Asn Ser Gln			
	595	600	605			
Leu Asp Glu Phe Ser	Asn Pro Phe Phe	Val Asn Tyr Glu	Asn His Val			
	610	615	620			
Leu Tyr Pro Val Ala	Ser Leu Ser His	Leu Glu Leu Trp	Val Asn Tyr			
625	630	635	640			
Tyr Val Arg Trp Asn	Pro Arg Met Arg	Pro Gln Met Pro	Ile His Gln			
	645	650	655			
Asn Leu Lys Glu Leu	Leu Ala Val Arg	Ala Glu Leu Gln	Lys Arg Val			
	660	665	670			
Glu Gly Leu Gln Arg	Glu Val Ala Thr	Arg Ala Val Ser	Ser Ser Ser			
	675	680	685			
Glu Arg Gly Ser Ser	Pro Ser His Phe	Ala Thr Ser Val	His Thr Leu			
	690	695	700			
Val						
705						

<210> 3507
 <211> 725
 <212> PRT
 <213> Homo sapiens

<400> 3507

Gly Ser Ser Ile Lys	Ile Arg Leu Thr	Val Leu Cys Ala	Lys Asn Leu
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	20	25	30
Val Asp Gly Ser Gly	Gln Cys His Ser	Thr Asp Thr Val	Lys Asn Thr
	35	40	45
Leu Asp Pro Lys Trp	Asn Gln His Tyr	Asp Leu Tyr Val	Gly Lys Thr
	50	55	60
Asp Ser Ile Thr Ile	Ser Val Trp Asn	His Lys Lys Ile	His Lys Lys
	65	70	75
Gln Gly Ala Gly Phe	Leu Gly Cys Val	Arg Leu Leu Ser	Asn Ala Ile
	85	90	95
Ser Arg Leu Lys Asp	Thr Gly Tyr Gln	Arg Leu Asp Leu	Cys Lys Leu
	100	105	110
Asn Pro Ser Asp Thr	Asp Ala Val Arg	Gly Gln Ile Val	Val Ser Leu
	115	120	125
Gln Thr Arg Asp Arg	Ile Gly Thr Gly	Gly Ser Val Val	Asp Cys Arg
	130	135	140
Gly Leu Leu Glu Asn	Glu Gly Thr Val	Tyr Glu Asp Ser	Gly Pro Gly
	145	150	155
Arg Pro Leu Ser Cys	Phe Met Glu Glu	Pro Ala Pro Tyr	Thr Asp Ser
	165	170	175
Thr Gly Ala Ala Ala	Gly Gly Gly Asn	Cys Arg Phe Val	Glu Ser Pro

			180					185					190			
Ser	Gln	Asp	Gln	Arg	Leu	Gln	Ala	Gln	Arg	Leu	Arg	Asn	Pro	Asp	Val	
		195					200					205				
Arg	Gly	Ser	Leu	Gln	Thr	Pro	Gln	Asn	Arg	Pro	His	Gly	His	Gln	Ser	
	210					215					220					
Pro	Glu	Leu	Pro	Glu	Gly	Tyr	Glu	Gln	Arg	Thr	Thr	Val	Gln	Gly	Gln	
225					230					235					240	
Val	Tyr	Phe	Leu	His	Thr	Gln	Thr	Gly	Val	Ser	Thr	Trp	His	Asp	Pro	
				245					250					255		
Arg	Ile	Pro	Arg	Asp	Leu	Asn	Ser	Val	Asn	Cys	Asp	Glu	Leu	Gly	Pro	
			260					265					270			
Leu	Pro	Pro	Gly	Trp	Glu	Val	Arg	Ser	Thr	Val	Ser	Gly	Arg	Ile	Tyr	
		275					280					285				
Phe	Val	Asp	His	Asn	Asn	Arg	Thr	Thr	Gln	Phe	Thr	Asp	Pro	Arg	Leu	
	290					295					300					
His	His	Ile	Met	Asn	His	Gln	Cys	Gln	Leu	Lys	Glu	Pro	Ser	Gln	Pro	
305					310					315					320	
Leu	Pro	Leu	Pro	Ser	Glu	Gly	Ser	Leu	Glu	Asp	Glu	Glu	Leu	Pro	Ala	
				325						330				335		
Gln	Arg	Tyr	Glu	Arg	Asp	Leu	Val	Gln	Lys	Leu	Lys	Val	Leu	Arg	His	
			340					345					350			
Glu	Leu	Ser	Leu	Gln	Gln	Pro	Gln	Ala	Gly	His	Cys	Arg	Ile	Glu	Val	
		355					360					365				
Ser	Arg	Glu	Glu	Ile	Phe	Glu	Glu	Ser	Tyr	Arg	Gln	Ile	Met	Lys	Met	
	370					375					380					
Arg	Pro	Lys	Asp	Leu	Lys	Lys	Arg	Leu	Met	Val	Lys	Phe	Arg	Gly	Glu	
385					390					395					400	
Glu	Gly	Leu	Asp	Tyr	Gly	Gly	Val	Ala	Arg	Glu	Trp	Leu	Tyr	Leu	Leu	
			405						410					415		
Cys	His	Glu	Met	Leu	Asn	Pro	Tyr	Tyr	Gly	Leu	Phe	Gln	Tyr	Ser	Thr	
			420					425					430			
Asp	Asn	Ile	Tyr	Met	Leu	Gln	Ile	Asn	Pro	Asp	Ser	Ser	Ile	Asn	Pro	
		435					440					445				
Asp	His	Leu	Ser	Tyr	Phe	His	Phe	Val	Gly	Arg	Ile	Met	Gly	Leu	Ala	
	450					455					460					
Val	Phe	His	Gly	His	Tyr	Ile	Asn	Gly	Gly	Phe	Thr	Val	Pro	Phe	Tyr	
465					470					475					480	
Lys	Gln	Leu	Leu	Gly	Lys	Pro	Ile	Gln	Leu	Ser	Asp	Leu	Glu	Ser	Val	
				485						490				495		
Asp	Pro	Glu	Leu	His	Lys	Ser	Leu	Val	Trp	Ile	Leu	Glu	Asn	Asp	Ile	
			500					505					510			
Thr	Pro	Val	Leu	Asp	His	Thr	Phe	Cys	Val	Glu	His	Asn	Ala	Phe	Gly	
		515					520					525				
Arg	Ile	Leu	Gln	His	Glu	Leu	Lys	Pro	Asn	Gly	Arg	Asn	Val	Pro	Val	
	530					535					540					
Thr	Glu	Glu	Asn	Lys	Lys	Glu	Tyr	Val	Arg	Leu	Tyr	Val	Asn	Trp	Arg	
545					550					555					560	
Phe	Met	Arg	Gly	Ile	Glu	Ala	Gln	Phe	Leu	Ala	Leu	Gln	Lys	Gly	Phe	
			565						570					575		
Asn	Glu	Leu	Ile	Pro	Gln	His	Leu	Leu	Lys	Pro	Phe	Asp	Gln	Lys	Glu	
			580					585					590			
Leu	Glu	Leu	Ile	Ile	Gly	Gly	Leu	Asp	Lys	Ile	Asp	Leu	Asn	Asp	Trp	
		595					600					605				
Lys	Ser	Asn	Thr	Arg	Leu	Lys	His	Cys	Val	Ala	Asp	Ser	Asn	Ile	Val	
	610					615					620					
Arg	Trp	Phe	Trp	Gln	Ala	Val	Glu	Thr	Phe	Asp	Glu	Glu	Arg	Arg	Ala	
625					630					635					640	
Arg	Leu	Leu	Gln	Phe	Val	Thr	Gly	Ser	Thr	Arg	Val	Pro	Leu	Gln	Gly	
			645						650					655		
Phe	Lys	Ala	Leu	Gln	Gly	Ser	Thr	Gly	Ala	Ala	Gly	Pro	Arg	Leu	Phe	
		660						665					670			
Thr	Ile	His	Leu	Ile	Asp	Ala	Asn	Thr	Asp	Asn	Leu	Arg	Lys	Ala	His	
	675						680					685				
Thr	Cys	Phe	Asn	Arg	Ile	Asp	Ile	Pro	Pro	Tyr	Glu	Ser	Tyr	Glu	Lys	

690	695	700
Leu Tyr Glu Lys Leu Leu Thr Ala Val Glu Glu Thr Cys Gly Phe Ala		
705	710	715
Val Glu		720
722		

<210> 3508
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 <212> PRT
 <213> Homo sapiens

<400> 3508

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Ser	Trp	Ile	Glu	Lys	Arg	Glu	Ile	Gln	Thr	Glu	Arg	Ala	Asn	Leu	Thr
		20						25					30		
Ile	Leu	Phe	Asp	Lys	Tyr	Leu	Pro	Thr	Cys	Leu	Asp	Thr	Leu	Arg	Thr
		35					40					45			
Arg	Phe	Lys	Lys	Ile	Ile	Pro	Ile	Pro	Glu	Gln	Ser	Met	Val	Gln	Met
		50				55					60				
Val	Cys	His	Leu	Leu	Glu	Cys	Leu	Leu	Thr	Thr	Glu	Asp	Ile	Pro	Ala
					70					75					80
Asp	Cys	Pro	Lys	Glu	Ile	Tyr	Glu	His	Tyr	Phe	Val	Phe	Ala	Ala	Ile
				85					90					95	
Trp	Ala	Phe	Gly	Gly	Ala	Met	Val	Gln	Asp	Gln	Leu	Val	Asp	Tyr	Arg
			100					105					110		
Ala	Glu	Phe	Ser	Lys	Trp	Trp	Leu	Thr	Glu	Phe	Lys	Thr	Val	Lys	Phe
		115					120					125			
Pro	Ser	Gln	Gly	Thr	Ile	Phe	Asp	Tyr	Tyr	Ile	Asp	Pro	Glu	Thr	Lys
		130				135					140				
Lys	Phe	Glu	Pro	Trp	Ser	Lys	Leu	Val	Pro	Gln	Phe	Glu	Phe	Asp	Pro
		145			150					155				160	
Glu	Met	Pro	Leu	Gln	Ala	Cys	Leu	Val	His	Thr	Ser	Glu	Thr	Ile	Arg
				165					170					175	
Val	Cys	Tyr	Phe	Met	Glu	Arg	Leu	Met	Ala	Arg	Gln	Arg	Pro	Val	Met
			180					185					190		
Leu	Val	Gly	Thr	Ala	Gly	Thr	Gly	Lys	Ser	Val	Leu	Val	Gly	Ala	Lys
		195					200					205			
Leu	Ala	Ser	Leu	Asp	Pro	Glu	Ala	Tyr	Leu	Val	Lys	Asn	Val	Pro	Phe
		210				215					220				
Asn	Tyr	Tyr	Thr	Thr	Ser	Ala	Met	Leu	Gln	Ala	Val	Leu	Glu	Lys	Pro
		225			230					235				240	
Leu	Glu	Lys	Lys	Ala	Gly	Arg	Asn	Tyr	Gly	Pro	Pro	Gly	Asn	Lys	Lys
				245				250					255		
Leu	Ile	Tyr	Phe	Ile	Asp	Asp	Met	Asn	Met	Pro	Glu	Val	Asp	Ala	Tyr
			260				265						270		
Gly	Thr	Val	Gln	Pro	His	Thr	Ile	Ile	Arg	Gln	His	Leu	Asp	Tyr	Gly
		275				280						285			
His	Trp	Tyr	Asp	Arg	Ser	Lys	Leu	Ser	Leu	Lys	Glu	Ile	Thr	Asn	Val
		290				295					300				
Gln	Tyr	Val	Ser	Cys	Met	Asn	Pro	Thr	Ala	Gly	Ser	Phe	Thr	Ile	Asn
		305			310					315				320	
Pro	Arg	Leu	Gln	Arg	His	Phe	Ser	Val	Phe	Val	Leu	Ser	Phe	Pro	Gly
				325				330					335		
Ala	Asp	Ala	Leu	Ser	Ser	Ile	Tyr	Ser	Ile	Ile	Leu	Thr	Gln	His	Leu
			340				345					350			
Lys	Leu	Gly	Asn	Phe	Pro	Ala	Ser	Leu	Gln	Lys	Ser	Ile	Pro	Pro	Leu
		355				360						365			
Ile	Asp	Leu	Ala	Leu	Ala	Phe	His	Gln	Lys	Ile	Ala	Thr	Thr	Phe	Leu
		370				375					380				
Pro	Thr	Gly	Ile	Lys	Phe	His	Tyr	Ile	Phe	Asn	Leu	Arg	Asp	Phe	Ala

385					390					395				400
Asn	Ile	Phe	Gln	Gly	Ile	Leu	Phe	Ser	Ser	Val	Glu	Cys	Val	Lys Ser
				405					410					415
Thr	Trp	Asp	Leu	Ile	Arg	Leu	Tyr	Leu	His	Glu	Ser	Asn	Arg	Val Tyr
			420					425					430	
Arg	Asp	Lys	Met	Val	Glu	Glu	Lys	Asp	Phe	Asp	Leu	Phe	Asp	Lys Ile
		435					440					445		
Gln	Thr	Glu	Val	Leu	Lys	Lys	Thr	Phe	Asp	Asp	Ile	Glu	Asp	Pro Val
	450					455					460			
Glu	Gln	Thr	Gln	Ser	Pro	Asn	Leu	Tyr	Cys	His	Phe	Ala	Asn	Gly Ile
465					470					475				480
Gly	Glu	Pro	Lys	Tyr	Met	Pro	Val	Gln	Ser	Trp	Glu	Leu	Leu	Thr Gln
			485					490						495
Thr	Leu	Val	Glu	Ala	Leu	Glu	Asn	His	Asn	Glu	Val	Asn	Thr	Val Met
		500					505						510	
Asp	Leu	Val	Leu	Phe	Glu	Asp	Ala	Met	Arg	His	Val	Cys	His	Ile Asn
	515						520					525		
Arg	Ile	Leu	Glu	Ser	Pro	Arg	Gly	Asn	Ala	Leu	Leu	Val	Gly	Val Gly
	530					535					540			
Gly	Ser	Gly	Lys	Gln	Ser	Leu	Thr	Arg	Leu	Ala	Ala	Phe	Ile	Ser Ser
545				550					555					560
Met	Asp	Val	Phe	Gln	Ile	Thr	Leu	Arg	Lys	Gly	Tyr	Gln	Ile	Gln Asp
			565					570						575
Phe	Lys	Met	Asp	Leu	Ala	Ser	Leu	Cys	Leu	Lys	Ala	Gly	Val	Lys Asn
		580						585					590	
Leu	Asn	Thr	Val	Phe	Leu	Met	Thr	Asp	Ala	Gln	Val	Ala	Asp	Glu Arg
	595					600						605		
Phe	Leu	Val	Leu	Ile	Asn	Asp	Leu	Leu	Ala	Ser	Gly	Glu	Ile	Pro Asp
	610				615						620			
Leu	Tyr	Ser	Asp	Asp	Glu	Val	Glu	Asn	Ile	Ile	Ser	Asn	Val	Arg Asn
625				630					635					640
Glu	Val	Lys	Ser	Gln	Gly	Leu	Val	Asp	Asn	Arg	Glu	Asn	Cys	Trp Lys
			645					650						655
Phe	Phe	Ile	Asp	Arg	Ile	Arg	Arg	Gln	Leu	Lys	Val	Thr	Leu	Cys Phe
		660					665						670	
Ser	Pro	Val	Gly	Asn	Lys	Leu	Arg	Val	Arg	Ser	Arg	Lys	Phe	Pro Ala
	675						680					685		
Ile	Val	Asn	Cys	Thr	Ala	Ile	His	Trp	Phe	His	Glu	Trp	Pro	Gln Gln
	690					695					700			
Ala	Leu	Glu	Ser	Val	Ser	Leu	Arg	Phe	Leu	Gln	Asn	Thr	Glu	Gly Ile
705				710					715					720
Glu	Pro	Thr	Val	Lys	Gln	Ser	Ile	Ser	Lys	Phe	Met	Ala	Phe	Val His
			725					730						735
Thr	Ser	Val	Asn	Gln	Thr	Ser	Gln	Ser	Tyr	Leu	Ser	Asn	Glu	Gln Arg
		740					745						750	
Tyr	Asn	Tyr	Thr	Thr	Pro	Lys	Ser	Phe	Leu	Glu	Phe	Ile	Arg	Leu Tyr
	755					760						765		
Gln	Ser	Leu	Leu	His	Arg	His	Arg	Lys	Glu	Leu	Lys	Cys	Lys	Thr Glu
	770			775					780					
Arg	Leu	Glu	Asn	Gly	Leu	Leu	Lys	Leu	His	Ser	Thr	Ser	Ala	Gln Val
785				790					795					800
Asp	Asp	Leu	Lys	Ala	Lys	Leu	Ala	Ala	Gln	Glu	Val	Glu	Leu	Lys Gln
			805					810					815	
Lys	Asn	Glu	Asp	Ala	Asp	Lys	Leu	Ile	Gln	Val	Val	Gly	Val	Glu Thr
		820					825						830	
Asp	Lys	Val	Ser	Arg	Glu	Lys	Ala	Met	Ala	Asp	Glu	Glu	Glu	Gln Lys
	835					840						845		
Val	Ala	Val	Ile	Met	Leu	Glu	Val	Lys	Gln	Lys	Gln	Lys	Asp	Cys Glu
	850				855				860					
Glu	Asp	Leu	Ala	Lys	Ala	Glu	Pro	Ala	Leu	Thr	Ala	Ala	Gln	Ala Ala
865				870					875					880
Leu	Asn	Thr	Leu	Asn	Lys	Thr	Asn	Leu	Thr	Glu	Leu	Lys	Ser	Phe Gly
			885					890						895
Ser	Pro	Pro	Leu	Ala	Val	Ser	Asn	Val	Ser	Ala	Ala	Val	Met	Val Leu

	900		905		910										
Met	Ala	Pro	Arg	Gly	Arg	Val	Pro	Lys	Asp	Arg	Ser	Trp	Lys	Ala	Ala
	915						920					925			
Lys	Val	Thr	Met	Ala	Lys	Val	Asp	Gly	Phe	Leu	Asp	Ser	Leu	Ile	Asn
	930					935						940			
Phe	Asn	Lys	Glu	Asn	Ile	His	Glu	Asn	Cys	Leu	Lys	Ala	Ile	Arg	Pro
945				950					955						960
Tyr	Leu	Gln	Asp	Pro	Glu	Phe	Asn	Pro	Glu	Phe	Val	Ala	Thr	Lys	Ser
			965						970					975	
Tyr	Ala	Ala	Ala	Gly	Leu	Cys	Ser	Trp	Val	Ile	Asn	Ile	Val	Arg	Phe
		980						985					990		
Tyr	Glu	Val	Phe	Cys	Asp	Val	Glu	Pro	Lys	Arg	Gln	Ala	Leu	Asn	Lys
	995					1000						1005			
Ala	Thr	Ala	Asp	Leu	Thr	Ala	Ala	Gln	Glu	Lys	Leu	Ala	Ala	Ile	Lys
1010						1015						1020			
Ala	Lys	Ile	Ala	His	Leu	Asn	Glu	Asn	Leu	Ala	Lys	Leu	Thr	Ala	Arg
1025				1030					1035					1040	
Phe	Glu	Lys	Ala	Thr	Ala	Asp	Lys	Leu	Lys	Cys	Gln	Gln	Glu	Ala	Glu
			1045						1050				1055		
Val	Thr	Ala	Val	Thr	Ile	Ser	Leu	Ala	Asn	Arg	Leu	Val	Gly	Gly	Leu
	1060							1065				1070			
Ala	Ser	Glu	Asn	Val	Arg	Trp	Ala	Asp	Ala	Val	Gln	Asn	Phe	Lys	Gln
	1075					1080					1085				
Gln	Glu	Arg	Thr	Leu	Cys	Gly	Asp	Ile	Leu	Leu	Ile	Thr	Ala	Phe	Ile
1090				1095					1100						
Ser	Tyr	Leu	Gly	Phe	Phe	Thr	Lys	Lys	Tyr	Arg	Gln	Ser	Leu	Leu	Asp
1105				1110					1115				1120		
Arg	Thr	Trp	Arg	Pro	Tyr	Leu	Ser	Gln	Leu	Lys	Thr	Pro	Ile	Pro	Val
			1125						1130				1135		
Thr	Pro	Ala	Leu	Asp	Pro	Leu	Arg	Met	Leu	Met	Asp	Asp	Ala	Asp	Val
	1140							1145				1150			
Ala	Ala	Trp	Gln	Asn	Glu	Gly	Leu	Pro	Ala	Asp	Arg	Met	Ser	Val	Glu
	1155					1160					1165				
Asn	Ala	Thr	Ile	Leu	Ile	Asn	Cys	Glu	Arg	Trp	Pro	Leu	Met	Val	Asp
1170				1175					1180						
Pro	Gln	Leu	Gln	Gly	Ile	Lys	Trp	Ile	Lys	Asn	Lys	Tyr	Gly	Glu	Asp
1185			1190						1195				1200		
Leu	Arg	Val	Thr	Gln	Ile	Gly	Gln	Lys	Gly	Tyr	Leu	Gln	Ile	Ile	Glu
		1205							1210				1215		
Gln	Ala	Leu	Glu	Ala	Gly	Ala	Val	Val	Leu	Ile	Glu	Asn	Leu	Glu	Glu
	1220					1225					1230				
Ser	Ile	Asp	Pro	Val	Leu	Gly	Pro	Leu	Leu	Gly	Arg	Glu	Val	Ile	Lys
	1235					1240				1245					
Lys	Gly	Arg	Phe	Ile	Lys	Ile	Gly	Asp	Lys	Glu	Cys	Glu	Tyr	Asn	Pro
1250				1255					1260						
Lys	Phe	Arg	Leu	Ile	Leu	His	Thr	Lys	Leu	Ala	Asn	Pro	His	Tyr	Gln
1265			1270						1275				1280		
Pro	Glu	Leu	Gln	Ala	Gln	Ala	Thr	Leu	Ile	Asn	Phe	Thr	Val	Thr	Arg
		1285						1290					1295		
Asp	Gly	Leu	Glu	Asp	Gln	Leu	Leu	Ala	Ala	Val	Val	Ser	Met	Glu	Arg
	1300					1305						1310			
Pro	Asp	Leu	Glu	Gln	Leu	Lys	Ser	Asp	Leu	Thr	Lys	Gln	Gln	Asn	Gly
	1315					1320					1325				
Phe	Lys	Ile	Thr	Leu	Lys	Thr	Leu	Glu	Asp	Ser	Leu	Leu	Ser	Arg	Leu
1330			1335						1340						
Ser	Ser	Ala	Ser	Gly	Asn	Phe	Leu	Gly	Glu	Thr	Val	Leu	Val	Glu	Asn
1345			1350						1355				1360		
Leu	Glu	Ile	Thr	Lys	Gln	Thr	Ala	Ala	Glu	Val	Glu	Lys	Lys	Val	Gln
		1365						1370				1375			
Glu	Ala	Lys	Val	Thr	Glu	Val	Lys	Ile	Asn	Glu	Ala	Arg	Glu	His	Tyr
	1380					1385						1390			
Arg	Pro	Ala	Ala	Ala	Arg	Ala	Ser	Leu	Leu	Tyr	Phe	Ile	Met	Asn	Asp
	1395					1400					1405				
Leu	Ser	Lys	Ile	His	Pro	Met	Tyr	Gln	Phe	Ser	Leu	Lys	Ala	Phe	Ser

1410 1415 1420
Ile Val Phe Gln Lys Ala Val Glu Arg Ala Ala Pro Asp Glu Ser Leu
1425 1430 1435 1440
Arg Glu Arg Val Ala Asn Leu Ile Asp Ser Ile Thr Phe Ser Val Tyr
1445 1450 1455
Gln Tyr Thr Ile Arg Gly Leu Phe Glu Cys Asp Lys Leu Thr Tyr Leu
1460 1465 1470
Ala Gln Leu Thr Phe Gln Ile Leu Leu Met Asn Arg Glu Val Asn Ala
1475 1480 1485
Val Glu Leu Asp Phe Leu Leu Arg Ser Pro Val Gln Thr Gly Thr Ala
1490 1495 1500
Ser Pro Val Glu Phe Leu Ser His Gln Ala Trp Gly Ala Val Lys Val
1505 1510 1515 1520
Leu Ser Ser Met Glu Glu Phe Ser Asn Leu Asp Arg Asp Ile Glu Gly
1525 1530 1535
Ser Ala Lys Ser Trp Lys Lys Phe Val Glu Ser Glu Cys Pro Glu Lys
1540 1545 1550
Glu Lys Leu Pro Gln Glu Trp Lys Asn Lys Thr Ala Leu Gln Arg Leu
1555 1560 1565
Cys Met Leu Arg Ala Met Arg Pro Asp Arg Met Thr Tyr Ala Leu Arg
1570 1575 1580
Asp Phe Val Glu Glu Lys Leu Gly Ser Lys Tyr Val Val Gly Arg Ala
1585 1590 1595 1600
Leu Asp Phe Ala Thr Ser Phe Glu Glu Ser Gly Pro Ala Thr Pro Met
1605 1610 1615
Phe Phe Ile Leu Ser Pro Gly Val Asp Pro Leu Lys Asp Val Glu Ser
1620 1625 1630
Gln Gly Arg Lys Leu Gly Tyr Thr Phe Asn Asn Gln Asn Phe His Asn
1635 1640 1645
Val Ser Leu Gly Gln Gly Gln Glu Val Val Ala Glu Ala Ala Leu Asp
1650 1655 1660
Leu Ala Ala Lys Lys Gly His Trp Val Ile Leu Gln Asn Thr Leu Glu
1665 1670 1675 1680
Met Cys Ser Arg Glu Thr Glu Phe Lys Ser Ile Leu Phe Ala Leu Cys
1685 1690 1695
Tyr Phe His Ala Val Val Ala Glu Arg Arg Lys Phe Gly Pro Gln Gly
1700 1705 1710
Trp Asn Arg Ser Tyr Pro Phe Asn Thr Gly Asp Leu Thr Ile Ser Val
1715 1720 1725
Asn Val Leu Tyr Asn Phe Leu Glu Ala Asn Ala Lys Val Pro Tyr Asp
1730 1735 1740
Asp Leu Arg Tyr Leu Phe Gly Glu Ile Met Tyr Gly Gly His Ile Thr
1745 1750 1755 1760
Asp Asp Trp Asp Arg Arg Leu Cys Arg Thr Tyr Leu Gly Glu Phe Ile
1765 1770 1775
Arg Pro Glu Met Leu Glu Gly Glu Leu Ser Leu Ala Pro Gly Phe Pro
1780 1785 1790
Leu Pro Gly Asn Met Asp Tyr Asn Gly Tyr His Gln Tyr Ile Asp Ala
1795 1800 1805
Glu Leu Pro Pro Glu Ser Pro Tyr Leu Tyr Gly Leu His Pro Asn Ala
1810 1815 1820
Glu Ile Gly Phe Leu Thr Gln Thr Ser Glu Lys Leu Phe Arg Thr Val
1825 1830 1835 1840
Leu Glu Leu Gln Pro Arg Asp Ser Gln Ala Arg Asp Gly Ala Gly Ala
1845 1850 1855
Thr Arg Glu Glu Lys Val Lys Ala Leu Leu Glu Glu Ile Leu Glu Arg
1860 1865 1870
Val Thr Asp Glu Phe Asn Ile Pro Glu Leu Met Ala Lys Val Glu Glu
1875 1880 1885
Arg Thr Pro Tyr Ile Val Val Ala Phe Gln Glu Cys Gly Arg Met Asn
1890 1895 1900
Ile Leu Thr Arg Glu Ile Gln Arg Ser Leu Arg Glu Leu Glu Leu Gly
1905 1910 1915 1920
Leu Lys Gly Glu Leu Thr Met Thr Ser His Met Glu Asn Leu Gln Asn

	1925		1930		1935										
Ala	Leu	Tyr	Phe	Asp	Met	Val	Pro	Glu	Ser	Trp	Ala	Arg	Arg	Ala	Tyr
	1940		1945		1950										
Pro	Ser	Thr	Ala	Gly	Leu	Ala	Ala	Trp	Phe	Pro	Asp	Leu	Leu	Asn	Arg
	1955		1960		1965										
Ile	Lys	Glu	Leu	Glu	Ala	Trp	Thr	Gly	Asp	Phe	Thr	Met	Pro	Ser	Thr
	1970		1975		1980										
Val	Trp	Leu	Thr	Gly	Phe	Phe	Asn	Pro	Gln	Ser	Phe	Leu	Thr	Ala	Ile
1985			1990		1995									2000	
Met	Gln	Ser	Thr	Ala	Arg	Lys	Asn	Glu	Trp	Pro	Leu	Asp	Gln	Met	Ala
	2005		2010		2015										
Leu	Gln	Cys	Asp	Met	Thr	Lys	Lys	Asn	Arg	Glu	Glu	Phe	Arg	Ser	Pro
	2020		2025		2030										
Pro	Arg	Glu	Gly	Ala	Tyr	Ile	His	Gly	Leu	Phe	Met	Glu	Gly	Ala	Cys
	2035		2040		2045										
Trp	Asp	Thr	Gln	Ala	Gly	Ile	Ile	Thr	Glu	Ala	Lys	Leu	Lys	Asp	Leu
	2050		2055		2060										
Thr	Pro	Pro	Met	Pro	Val	Met	Phe	Ile	Lys	Ala	Ile	Pro	Ala	Asp	Arg
2065			2070		2075									2080	
Gln	Asp	Cys	Gly	His	Val	Tyr	Ser	Cys	Pro	Val	Thr	Lys	Thr	Ser	Gln
	2085		2090		2095										
Arg	Asp	Pro	Thr	Tyr	Val	Trp	Thr	Phe	Asn	Leu	Lys	Thr	Lys	Glu	Asn
	2100		2105		2110										
Pro	Ser	Lys	Trp	Val	Leu	Ala	Gly	Val	Ala	Leu	Leu	Leu	Gln	Ile	
	2115		2120		2125		2127								

<210> 3509

<211> 2129

<212> PRT

<213> Homo sapiens

<400> 3509

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Ser	Trp	Ile	Glu	Lys	Arg	Glu	Ile	Gln	Thr	Glu	Arg	Ala	Asn	Leu	Thr
			20					25					30		
Ile	Leu	Phe	Asp	Lys	Tyr	Leu	Pro	Thr	Cys	Leu	Asp	Thr	Leu	Arg	Thr
		35					40					45			
Arg	Phe	Lys	Lys	Ile	Ile	Pro	Ile	Pro	Glu	Gln	Ser	Met	Val	Gln	Met
	50					55					60				
Val	Cys	His	Leu	Leu	Glu	Cys	Leu	Leu	Thr	Thr	Glu	Asp	Ile	Pro	Ala
	65				70					75					80
Asp	Cys	Pro	Lys	Glu	Ile	Tyr	Glu	His	Tyr	Phe	Val	Phe	Ala	Ala	Ile
			85					90						95	
Trp	Ala	Phe	Gly	Gly	Ala	Met	Val	Gln	Asp	Gln	Leu	Val	Asp	Tyr	Arg
			100					105					110		
Ala	Glu	Phe	Ser	Lys	Trp	Trp	Leu	Thr	Glu	Phe	Lys	Thr	Val	Lys	Phe
		115					120						125		
Pro	Ser	Gln	Gly	Thr	Ile	Phe	Asp	Tyr	Tyr	Ile	Asp	Pro	Glu	Thr	Lys
	130				135						140				
Lys	Phe	Glu	Pro	Trp	Ser	Lys	Leu	Val	Pro	Gln	Phe	Glu	Phe	Asp	Pro
	145				150					155				160	
Glu	Met	Pro	Leu	Gln	Ala	Cys	Leu	Val	His	Thr	Ser	Glu	Thr	Ile	Arg
			165						170					175	
Val	Cys	Tyr	Phe	Met	Glu	Arg	Leu	Met	Ala	Arg	Gln	Arg	Pro	Val	Met
			180					185					190		
Leu	Val	Gly	Thr	Ala	Gly	Thr	Gly	Lys	Ser	Val	Leu	Val	Gly	Ala	Lys
		195					200						205		
Leu	Ala	Ser	Leu	Asp	Pro	Glu	Ala	Tyr	Leu	Val	Lys	Asn	Val	Pro	Phe
	210					215					220				
Asn	Tyr	Tyr	Thr	Thr	Ser	Ala	Met	Leu	Gln	Ala	Val	Leu	Glu	Lys	Pro

225					230					235				240
Leu	Glu	Lys	Lys	Ala	Gly	Arg	Asn	Tyr	Gly	Pro	Pro	Gly	Asn	Lys
				245					250					255
Leu	Ile	Tyr	Phe	Ile	Asp	Asp	Met	Asn	Met	Pro	Glu	Val	Asp	Ala
			260					265					270	
Gly	Thr	Val	Gln	Pro	His	Thr	Ile	Ile	Arg	Gln	His	Leu	Asp	Tyr
		275					280					285		Gly
His	Trp	Tyr	Asp	Arg	Ser	Lys	Leu	Ser	Leu	Lys	Glu	Ile	Thr	Asn
	290					295					300			Val
Gln	Tyr	Val	Ser	Cys	Met	Asn	Pro	Thr	Ala	Gly	Ser	Phe	Thr	Ile
305				310						315				Asn
Pro	Arg	Leu	Gln	Arg	His	Phe	Ser	Val	Phe	Val	Leu	Ser	Phe	Pro
			325						330					Gly
Ala	Asp	Ala	Leu	Ser	Ser	Ile	Tyr	Ser	Ile	Ile	Leu	Thr	Gln	His
		340						345					350	Leu
Lys	Leu	Gly	Asn	Phe	Pro	Ala	Ser	Leu	Gln	Lys	Ser	Ile	Pro	Pro
	355						360					365		Leu
Ile	Asp	Leu	Ala	Leu	Ala	Phe	His	Gln	Lys	Ile	Ala	Thr	Thr	Phe
	370					375					380			Leu
Pro	Thr	Gly	Ile	Lys	Phe	His	Tyr	Ile	Phe	Asn	Leu	Arg	Asp	Phe
385				390						395				Ala
Asn	Ile	Phe	Gln	Gly	Ile	Leu	Phe	Ser	Ser	Val	Glu	Cys	Val	Lys
			405					410					415	Ser
Thr	Trp	Asp	Leu	Ile	Arg	Leu	Tyr	Leu	His	Glu	Ser	Asn	Arg	Val
		420						425					430	Tyr
Arg	Asp	Lys	Met	Val	Glu	Glu	Lys	Asp	Phe	Asp	Leu	Phe	Asp	Lys
	435						440				445			Ile
Gln	Thr	Glu	Val	Leu	Lys	Lys	Thr	Phe	Asp	Asp	Ile	Glu	Asp	Pro
	450					455					460			Val
Glu	Gln	Thr	Gln	Ser	Pro	Asn	Leu	Tyr	Cys	His	Phe	Ala	Asn	Gly
465				470						475				Ile
Gly	Glu	Pro	Lys	Tyr	Met	Pro	Val	Gln	Ser	Trp	Glu	Leu	Leu	Thr
			485					490					495	Gln
Thr	Leu	Val	Glu	Ala	Leu	Glu	Asn	His	Asn	Glu	Val	Asn	Thr	Val
		500					505					510		Met
Asp	Leu	Val	Leu	Phe	Glu	Asp	Ala	Met	Arg	His	Val	Cys	His	Ile
	515						520				525			Asn
Arg	Ile	Leu	Glu	Ser	Pro	Arg	Gly	Asn	Ala	Leu	Leu	Val	Gly	Val
	530					535					540			Gly
Gly	Ser	Gly	Lys	Gln	Ser	Leu	Thr	Arg	Leu	Ala	Ala	Phe	Ile	Ser
545				550					555					Ser
Met	Asp	Val	Phe	Gln	Ile	Thr	Leu	Arg	Lys	Gly	Tyr	Gln	Ile	Gln
			565					570					575	Asp
Phe	Lys	Met	Asp	Leu	Ala	Ser	Leu	Cys	Leu	Lys	Ala	Gly	Val	Lys
		580					585					590		Asn
Leu	Asn	Thr	Val	Phe	Leu	Met	Thr	Asp	Ala	Gln	Val	Ala	Asp	Glu
	595						600					605		Arg
Phe	Leu	Val	Leu	Ile	Asn	Asp	Leu	Leu	Ala	Ser	Gly	Glu	Ile	Pro
	610				615						620			Asp
Leu	Tyr	Ser	Asp	Asp	Glu	Val	Glu	Asn	Ile	Ile	Ser	Asn	Val	Arg
625				630						635				Asn
Glu	Val	Lys	Ser	Gln	Gly	Leu	Val	Asp	Asn	Arg	Glu	Asn	Cys	Trp
			645					650					655	Lys
Phe	Phe	Ile	Asp	Arg	Ile	Arg	Arg	Gln	Leu	Lys	Val	Thr	Leu	Cys
		660					665					670		Phe
Ser	Pro	Val	Gly	Asn	Lys	Leu	Arg	Val	Arg	Ser	Arg	Lys	Phe	Pro
	675						680					685		Ala
Ile	Val	Asn	Cys	Thr	Ala	Ile	His	Trp	Phe	His	Glu	Trp	Pro	Gln
	690				695						700			Gln
Ala	Leu	Glu	Ser	Val	Ser	Leu	Arg	Phe	Leu	Gln	Asn	Thr	Glu	Gly
705				710						715				Ile
Glu	Pro	Thr	Val	Lys	Gln	Ser	Ile	Ser	Lys	Phe	Met	Ala	Phe	Val
			725					730					735	His
Thr	Ser	Val	Asn	Gln	Thr	Ser	Gln	Ser	Tyr	Leu	Ser	Asn	Glu	Gln
														Arg

5248

1250	1255	1260
Lys Phe Arg Leu Ile Leu His Thr Lys Leu Ala Asn Pro His Tyr Gln		
1265	1270	1275
Pro Glu Leu Gln Ala Gln Ala Thr Leu Ile Asn Phe Thr Val Thr Arg		1280
	1285	1290
Asp Gly Leu Glu Asp Gln Leu Leu Ala Ala Val Val Ser Met Glu Arg		1295
	1300	1305
Pro Asp Leu Glu Gln Leu Lys Ser Asp Leu Thr Lys Gln Gln Asn Gly		1310
	1315	1320
Phe Lys Ile Thr Leu Lys Thr Leu Glu Asp Ser Leu Leu Ser Arg Leu		1325
	1330	1335
Ser Ser Ala Ser Gly Asn Phe Leu Gly Glu Thr Val Leu Val Glu Asn		1340
1345	1350	1355
Leu Glu Ile Thr Lys Gln Thr Ala Ala Glu Val Glu Lys Lys Val Gln		1360
	1365	1370
Glu Ala Lys Val Thr Glu Val Lys Ile Asn Glu Ala Arg Glu His Tyr		1375
	1380	1385
Arg Pro Ala Ala Ala Arg Ala Ser Leu Leu Tyr Phe Ile Met Asn Asp		1390
	1395	1400
Leu Ser Lys Ile His Pro Met Tyr Gln Phe Ser Leu Lys Ala Phe Ser		1405
	1410	1415
Ile Val Phe Gln Lys Ala Val Glu Arg Ala Ala Pro Asp Glu Ser Leu		1420
1425	1430	1435
Arg Glu Arg Val Ala Asn Leu Ile Asp Ser Ile Thr Phe Ser Val Tyr		1440
	1445	1450
Gln Tyr Thr Ile Arg Gly Leu Phe Glu Cys Asp Lys Leu Thr Tyr Leu		1455
	1460	1465
Ala Gln Leu Thr Phe Gln Ile Leu Leu Met Asn Arg Glu Val Asn Ala		1470
	1475	1480
Val Glu Leu Asp Phe Leu Leu Arg Ser Pro Val Gln Thr Gly Thr Ala		1485
	1490	1495
Ser Pro Val Glu Phe Leu Ser His Gln Ala Trp Gly Ala Val Lys Val		1500
1505	1510	1515
Leu Ser Ser Met Glu Glu Phe Ser Asn Leu Asp Arg Asp Ile Glu Gly		1520
	1525	1530
Ser Ala Lys Ser Trp Lys Lys Phe Val Glu Ser Glu Cys Pro Glu Lys		1535
	1540	1545
Glu Lys Leu Pro Gln Glu Trp Lys Asn Lys Thr Ala Leu Gln Arg Leu		1550
	1555	1560
Cys Met Leu Arg Ala Met Arg Pro Asp Arg Met Thr Tyr Ala Leu Arg		1565
	1570	1575
Asp Phe Val Glu Glu Lys Leu Gly Ser Lys Tyr Val Val Gly Arg Ala		1580
1585	1590	1595
Leu Asp Phe Ala Thr Ser Phe Glu Glu Ser Gly Pro Ala Thr Pro Met		1600
	1605	1610
Phe Phe Ile Leu Ser Pro Gly Val Asp Pro Leu Lys Asp Val Glu Ser		1615
	1620	1625
Gln Gly Arg Lys Leu Gly Tyr Thr Phe Asn Asn Gln Asn Phe His Asn		1630
	1635	1640
Val Ser Leu Gly Gln Gly Gln Glu Val Val Ala Glu Ala Ala Leu Asp		1645
	1650	1655
Leu Ala Ala Lys Lys Gly His Trp Val Ile Leu Gln Asn Thr Leu Glu		1660
1665	1670	1675
Met Cys Ser Arg Glu Thr Glu Phe Lys Ser Ile Leu Phe Ala Leu Cys		1680
	1685	1690
Tyr Phe His Ala Val Val Ala Glu Arg Arg Lys Phe Gly Pro Gln Gly		1695
	1700	1705
Trp Asn Arg Ser Tyr Pro Phe Asn Thr Gly Asp Leu Thr Ile Ser Val		1710
	1715	1720
Asn Val Leu Tyr Asn Phe Leu Glu Ala Asn Ala Lys Val Pro Tyr Asp		1725
	1730	1735
Asp Leu Arg Tyr Leu Phe Gly Glu Ile Met Tyr Gly Gly His Ile Thr		1740
1745	1750	1755
Asp Asp Trp Asp Arg Arg Leu Cys Arg Thr Tyr Leu Gly Glu Phe Ile		1760

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Arg	Pro	Glu	Met	Leu	Glu	Gly	Glu	Leu	Ser	Leu	Ala	Pro	Gly	Phe	Pro
	1780		1785		1790										
Leu	Pro	Gly	Asn	Met	Asp	Tyr	Asn	Gly	Tyr	His	Gln	Tyr	Ile	Asp	Ala
	1795		1800		1805										
Glu	Leu	Pro	Pro	Glu	Ser	Pro	Tyr	Leu	Tyr	Gly	Leu	His	Pro	Asn	Ala
	1810		1815		1820										
Glu	Ile	Gly	Phe	Leu	Thr	Gln	Thr	Ser	Glu	Lys	Leu	Phe	Arg	Thr	Val
1825			1830		1835				1840						
Leu	Glu	Leu	Gln	Pro	Arg	Asp	Ser	Gln	Ala	Arg	Asp	Gly	Ala	Gly	Ala
	1845		1850		1855										
Thr	Arg	Glu	Glu	Lys	Val	Lys	Ala	Leu	Leu	Glu	Glu	Ile	Leu	Glu	Arg
	1860		1865		1870										
Val	Thr	Asp	Glu	Phe	Asn	Ile	Pro	Glu	Leu	Met	Ala	Lys	Val	Glu	Glu
	1875		1880		1885										
Arg	Thr	Pro	Tyr	Ile	Val	Val	Ala	Phe	Gln	Glu	Cys	Gly	Arg	Met	Asn
	1890		1895		1900										
Ile	Leu	Thr	Arg	Glu	Ile	Gln	Arg	Ser	Leu	Arg	Glu	Leu	Glu	Leu	Gly
1905			1910		1915				1920						
Leu	Lys	Gly	Glu	Leu	Thr	Met	Thr	Ser	His	Met	Glu	Asn	Leu	Gln	Asn
	1925		1930		1935										
Ala	Leu	Tyr	Phe	Asp	Met	Val	Pro	Glu	Ser	Trp	Ala	Arg	Arg	Ala	Tyr
	1940		1945		1950										
Pro	Ser	Thr	Ala	Gly	Leu	Ala	Ala	Trp	Phe	Pro	Asp	Leu	Leu	Asn	Arg
	1955		1960		1965										
Ile	Lys	Glu	Leu	Glu	Ala	Trp	Thr	Gly	Asp	Phe	Thr	Met	Pro	Ser	Thr
	1970		1975		1980										
Val	Trp	Leu	Thr	Gly	Phe	Phe	Asn	Pro	Gln	Ser	Phe	Leu	Thr	Ala	Ile
1985			1990		1995				2000						
Met	Gln	Ser	Thr	Ala	Arg	Lys	Asn	Glu	Trp	Pro	Leu	Asp	Gln	Met	Ala
	2005		2010		2015										
Leu	Gln	Cys	Asp	Met	Thr	Lys	Lys	Asn	Arg	Glu	Glu	Phe	Arg	Ser	Pro
	2020		2025		2030										
Pro	Arg	Glu	Gly	Ala	Tyr	Ile	His	Gly	Leu	Phe	Met	Glu	Gly	Ala	Cys
	2035		2040		2045										
Trp	Asp	Thr	Gln	Ala	Gly	Ile	Ile	Thr	Glu	Ala	Lys	Leu	Lys	Asp	Leu
	2050		2055		2060										
Thr	Pro	Pro	Met	Pro	Val	Met	Phe	Ile	Lys	Ala	Ile	Pro	Ala	Asp	Arg
2065			2070		2075				2080						
Gln	Asp	Cys	Gly	His	Val	Tyr	Ser	Cys	Pro	Val	Thr	Lys	Thr	Ser	Gln
	2085		2090		2095										
Arg	Asp	Pro	Thr	Tyr	Val	Trp	Thr	Phe	Asn	Leu	Lys	Thr	Lys	Glu	Asn
	2100		2105		2110										
Pro	Ser	Lys	Trp	Val	Leu	Ala	Gly	Val	Ala	Leu	Leu	Leu	Gln	Ile	
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<210> 3510

<211> 981

<212> PRT

<213> Homo sapiens

<400> 3510

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		20						25					30		
Leu	Asn	Glu	Ser	Glu	Val	Asn	Arg	Gly	Asp	Lys	Tyr	Ile	Ala	Lys	Phe
	35						40					45			
Gln	Gly	Glu	Asp	Thr	Val	Val	Ile	Ala	Ser	Lys	Pro	Tyr	Ala	Phe	Asp
	50					55					60				
Arg	Val	Phe	Gln	Ser	Ser	Thr	Ser	Gln	Glu	Gln	Val	Tyr	Asn	Asp	Cys

65		70		75		80									
Ala	Lys	Lys	Ile	Val	Lys	Asp	Val	Leu	Glu	Gly	Tyr	Asn	Gly	Thr	Ile
			85						90					95	
Phe	Ala	Tyr	Gly	Gln	Thr	Ser	Ser	Gly	Lys	Thr	His	Thr	Met	Glu	Gly
			100					105					110		
Lys	Leu	His	Asp	Pro	Glu	Gly	Met	Gly	Ile	Ile	Pro	Arg	Ile	Val	Gln
		115					120					125			
Asp	Ile	Phe	Asn	Tyr	Ile	Tyr	Ser	Met	Asp	Glu	Asn	Leu	Glu	Phe	His
	130					135					140				
Ile	Lys	Val	Ser	Tyr	Phe	Glu	Ile	Tyr	Leu	Asp	Lys	Ile	Arg	Asp	Leu
145					150					155					160
Leu	Asp	Val	Ser	Lys	Thr	Asn	Leu	Ser	Val	His	Glu	Asp	Lys	Asn	Arg
			165					170						175	
Val	Pro	Tyr	Val	Lys	Gly	Cys	Thr	Glu	Arg	Phe	Val	Cys	Ser	Pro	Asp
		180						185					190		
Glu	Val	Met	Asp	Thr	Ile	Asp	Glu	Gly	Lys	Ser	Asn	Arg	His	Val	Ala
	195					200						205			
Val	Thr	Asn	Met	Asn	Glu	His	Ser	Ser	Arg	Ser	His	Ser	Ile	Phe	Leu
	210				215						220				
Ile	Asn	Val	Lys	Gln	Glu	Asn	Thr	Gln	Thr	Glu	Gln	Lys	Leu	Ser	Gly
225				230						235					240
Lys	Leu	Tyr	Leu	Val	Asp	Leu	Ala	Gly	Ser	Glu	Lys	Val	Ser	Lys	Thr
			245					250						255	
Gly	Ala	Glu	Gly	Ala	Val	Leu	Asp	Glu	Ala	Lys	Asn	Ile	Asn	Lys	Ser
		260						265					270		
Leu	Ser	Ala	Leu	Gly	Asn	Val	Ile	Ser	Ala	Leu	Ala	Glu	Gly	Ser	Thr
	275					280						285			
Tyr	Val	Pro	Tyr	Arg	Asp	Ser	Lys	Met	Thr	Arg	Ile	Leu	Gln	Asp	Ser
	290				295						300				
Leu	Gly	Gly	Asn	Cys	Arg	Thr	Thr	Ile	Val	Ile	Cys	Cys	Ser	Pro	Ser
305				310						315					320
Ser	Tyr	Asn	Glu	Ser	Glu	Thr	Lys	Ser	Thr	Leu	Leu	Phe	Gly	Gln	Arg
			325					330						335	
Ala	Lys	Thr	Ile	Lys	Asn	Thr	Val	Cys	Val	Asn	Val	Glu	Leu	Thr	Ala
		340						345					350		
Glu	Gln	Trp	Lys	Lys	Lys	Tyr	Glu	Lys	Glu	Lys	Glu	Lys	Asn	Lys	Ile
	355					360						365			
Leu	Arg	Asn	Thr	Ile	Gln	Trp	Leu	Glu	Asn	Glu	Leu	Asn	Arg	Trp	Arg
	370				375						380				
Asn	Gly	Glu	Thr	Val	Pro	Ile	Asp	Glu	Gln	Phe	Asp	Lys	Glu	Lys	Ala
385				390						395					400
Asn	Leu	Glu	Ala	Phe	Thr	Val	Asp	Lys	Asp	Ile	Thr	Leu	Thr	Asn	Asp
			405					410						415	
Lys	Pro	Ala	Thr	Ala	Ile	Gly	Val	Ile	Gly	Asn	Phe	Thr	Asp	Ala	Glu
		420						425					430		
Arg	Arg	Lys	Cys	Glu	Glu	Glu	Ile	Ala	Lys	Leu	Tyr	Lys	Gln	Leu	Asp
	435					440						445			
Asp	Lys	Asp	Glu	Glu	Ile	Asn	Gln	Gln	Ser	Gln	Leu	Val	Glu	Lys	Leu
	450				455						460				
Lys	Thr	Gln	Met	Leu	Asp	Gln	Glu	Glu	Leu	Leu	Ala	Ser	Thr	Arg	Arg
465				470						475					480
Asp	Gln	Asp	Asn	Met	Gln	Ala	Glu	Leu	Asn	Arg	Leu	Gln	Ala	Glu	Asn
			485					490						495	
Asp	Ala	Ser	Lys	Glu	Glu	Val	Lys	Glu	Val	Leu	Gln	Ala	Leu	Glu	Glu
		500						505					510		
Leu	Ala	Val	Asn	Tyr	Asp	Gln	Lys	Ser	Gln	Glu	Val	Glu	Asp	Lys	Thr
	515					520							525		
Lys	Glu	Tyr	Glu	Leu	Leu	Ser	Asp	Glu	Leu	Asn	Gln	Lys	Ser	Ala	Thr
	530					535					540				
Leu	Ala	Ser	Ile	Asp	Ala	Glu	Leu	Gln	Lys	Leu	Lys	Glu	Met	Thr	Asn
545				550						555					560
His	Gln	Lys	Lys	Arg	Ala	Ala	Glu	Met	Met	Ala	Ser	Leu	Leu	Lys	Asp
			565					570						575	
Leu	Ala	Glu	Ile	Gly	Ile	Ala	Val	Gly	Asn	Asn	Asp	Val	Lys	Gln	Pro

			580					585					590				
Glu	Gly	Thr	Gly	Met	Ile	Asp	Glu	Glu	Phe	Thr	Val	Ala	Arg	Leu	Tyr		
			595				600					605					
Ile	Ser	Lys	Met	Lys	Ser	Glu	Val	Lys	Thr	Met	Val	Lys	Arg	Cys	Lys		
			610				615					620					
Gln	Leu	Glu	Ser	Thr	Gln	Thr	Glu	Ser	Asn	Lys	Lys	Met	Glu	Glu	Asn		
625					630					635					640		
Glu	Lys	Glu	Leu	Ala	Ala	Cys	Gln	Leu	Arg	Ile	Ser	Gln	His	Glu	Ala		
				645					650				655				
Lys	Ile	Lys	Ser	Leu	Thr	Glu	Tyr	Leu	Gln	Asn	Val	Glu	Gln	Lys	Lys		
			660					665				670					
Arg	Gln	Leu	Glu	Glu	Ser	Val	Asp	Ala	Leu	Ser	Glu	Glu	Leu	Val	Gln		
			675				680					685					
Leu	Arg	Ala	Gln	Glu	Lys	Val	His	Glu	Met	Glu	Lys	Glu	His	Leu	Asn		
690					695						700						
Lys	Val	Gln	Thr	Ala	Asn	Glu	Val	Lys	Gln	Ala	Val	Glu	Gln	Gln	Ile		
705					710				715						720		
Gln	Ser	His	Arg	Glu	Thr	His	Gln	Lys	Gln	Ile	Ser	Ser	Leu	Arg	Asp		
				725					730				735				
Glu	Val	Glu	Ala	Lys	Ala	Lys	Leu	Ile	Thr	Asp	Leu	Gln	Asp	Gln	Asn		
			740					745				750					
Gln	Lys	Met	Met	Leu	Glu	Gln	Glu	Arg	Leu	Arg	Val	Glu	His	Glu	Lys		
		755				760					765						
Leu	Lys	Ala	Thr	Asp	Gln	Glu	Lys	Ser	Arg	Lys	Leu	His	Glu	Leu	Thr		
770					775						780						
Val	Met	Gln	Asp	Arg	Arg	Glu	Gln	Ala	Arg	Gln	Asp	Leu	Lys	Gly	Leu		
785					790					795					800		
Glu	Glu	Thr	Val	Ala	Lys	Glu	Leu	Gln	Thr	Leu	His	Asn	Leu	Arg	Lys		
			805					810					815				
Leu	Phe	Val	Gln	Asp	Leu	Ala	Thr	Arg	Val	Lys	Lys	Ser	Ala	Glu	Ile		
			820					825				830					
Asp	Ser	Asp	Asp	Thr	Gly	Gly	Ser	Ala	Ala	Gln	Lys	Gln	Lys	Ile	Ser		
		835				840						845					
Phe	Leu	Glu	Asn	Asn	Leu	Glu	Gln	Leu	Thr	Lys	Ser	Ala	Gln	Thr	Ser		
850					855					860							
Trp	Tyr	Arg	Asp	Asn	Ala	Asp	Leu	Arg	Cys	Glu	Leu	Pro	Lys	Leu	Glu		
865				870						875					880		
Lys	Arg	Leu	Arg	Ala	Thr	Ala	Glu	Arg	Val	Lys	Ala	Leu	Glu	Ser	Ala		
				885				890					895				
Leu	Lys	Glu	Ala	Lys	Glu	Asn	Ala	Ser	Arg	Asp	Arg	Lys	Arg	Tyr	Gln		
			900					905				910					
Gln	Glu	Val	Asp	Arg	Ile	Lys	Glu	Ala	Val	Arg	Ser	Lys	Asn	Met	Ala		
		915				920						925					
Arg	Arg	Gly	His	Ser	Ala	Gln	Ile	Ala	Lys	Pro	Ile	Arg	Pro	Gly	Gln		
930						935						940					
His	Pro	Ala	Ala	Ser	Pro	Thr	His	Pro	Ser	Ala	Ile	Arg	Gly	Gly	Gly		
945					950					955					960		
Ala	Phe	Val	Gln	Asn	Ser	Gln	Pro	Val	Ala	Val	Arg	Gly	Gly	Gly	Gly		
				965				970					975				
Lys	Gln	Val															
			979														

<210> 3511

<211> 587

<212> PRT

<213> Homo sapiens

<400> 3511

Met	Ala	Ser	Val	Gln	Ala	Ser	Arg	Arg	Gln	Trp	Cys	Tyr	Leu	Cys	Asp
1				5					10				15		
Leu	Pro	Lys	Met	Pro	Trp	Ala	Met	Val	Trp	Asp	Phe	Ser	Glu	Ala	Val

			20					25				30			
Cys	Arg	Gly	Cys	Val	Asn	Phe	Glu	Gly	Ala	Asp	Arg	Ile	Glu	Leu	Leu
		35					40					45			
Ile	Asp	Ala	Ala	Arg	Gln	Leu	Lys	Arg	Ser	His	Val	Leu	Pro	Glu	Gly
	50				55					60					
Arg	Ser	Pro	Gly	Pro	Pro	Ala	Leu	Lys	His	Pro	Ala	Thr	Lys	Asp	Leu
65					70				75					80	
Ala	Ala	Ala	Ala	Ala	Gln	Gly	Pro	Gln	Leu	Pro	Pro	Pro	Gln	Ala	Gln
				85				90					95		
Pro	Gln	Pro	Ser	Gly	Thr	Gly	Gly	Gly	Val	Ser	Gly	Gln	Asp	Arg	Tyr
			100				105					110			
Asp	Arg	Ala	Thr	Ser	Ser	Gly	Arg	Leu	Pro	Leu	Pro	Ser	Pro	Ala	Leu
		115				120						125			
Glu	Tyr	Thr	Leu	Gly	Ser	Arg	Leu	Ala	Asn	Gly	Leu	Gly	Arg	Glu	Glu
130					135				140						
Ala	Val	Ala	Glu	Gly	Ala	Arg	Arg	Ala	Leu	Leu	Gly	Ser	Met	Pro	Gly
145					150				155					160	
Leu	Met	Pro	Pro	Gly	Leu	Leu	Ala	Ala	Ala	Val	Ser	Gly	Leu	Gly	Ser
				165				170					175		
Arg	Gly	Leu	Thr	Leu	Ala	Pro	Gly	Leu	Ser	Pro	Ala	Arg	Pro	Leu	Phe
			180					185					190		
Gly	Ser	Asp	Phe	Glu	Lys	Glu	Lys	Gln	Gln	Arg	Asn	Ala	Asp	Cys	Leu
		195					200					205			
Ala	Glu	Leu	Asn	Glu	Ala	Met	Arg	Gly	Arg	Ala	Glu	Glu	Trp	His	Gly
210					215						220				
Arg	Pro	Lys	Ala	Val	Arg	Glu	Gln	Leu	Leu	Ala	Leu	Ser	Ala	Cys	Ala
225					230					235				240	
Pro	Phe	Asn	Val	Arg	Phe	Lys	Lys	Asp	His	Gly	Leu	Val	Gly	Arg	Val
				245				250					255		
Phe	Ala	Phe	Asp	Ala	Thr	Ala	Arg	Pro	Pro	Gly	Tyr	Glu	Phe	Glu	Leu
			260					265					270		
Lys	Leu	Phe	Thr	Glu	Tyr	Pro	Cys	Gly	Ser	Gly	Asn	Val	Tyr	Ala	Gly
		275					280					285			
Val	Leu	Ala	Val	Ala	Arg	Gln	Met	Phe	His	Asp	Ala	Leu	Arg	Glu	Pro
290					295					300					
Gly	Lys	Ala	Leu	Ala	Ser	Ser	Gly	Phe	Lys	Tyr	Leu	Glu	Tyr	Glu	Arg
305					310					315				320	
Arg	His	Gly	Ser	Gly	Glu	Trp	Arg	Gln	Leu	Gly	Glu	Leu	Leu	Thr	Asp
				325				330					335		
Gly	Val	Arg	Ser	Phe	Arg	Glu	Pro	Ala	Pro	Ala	Glu	Ala	Leu	Pro	Gln
			340					345					350		
Gln	Tyr	Pro	Glu	Pro	Ala	Pro	Ala	Ala	Leu	Cys	Gly	Pro	Pro	Pro	Arg
		355					360					365			
Ala	Pro	Ser	Arg	Asn	Leu	Ala	Pro	Thr	Pro	Arg	Arg	Arg	Lys	Ala	Ser
370					375					380					
Pro	Glu	Pro	Glu	Gly	Glu	Ala	Ala	Gly	Lys	Met	Thr	Thr	Glu	Glu	Gln
385					390					395				400	
Gln	Gln	Arg	His	Trp	Val	Ala	Pro	Gly	Gly	Pro	Tyr	Ser	Ala	Glu	Thr
				405				410					415		
Pro	Gly	Val	Pro	Ser	Pro	Ile	Ala	Ala	Leu	Lys	Asn	Val	Ala	Glu	Ala
			420					425					430		
Leu	Gly	His	Ser	Pro	Lys	Asp	Pro	Gly	Gly	Gly	Gly	Gly	Pro	Val	Arg
		435				440						445			
Ala	Gly	Gly	Ala	Ser	Pro	Ala	Ala	Ser	Ser	Thr	Ala	Gln	Pro	Pro	Thr
450					455					460					
Gln	His	Arg	Leu	Val	Ala	Arg	Asn	Gly	Glu	Ala	Glu	Val	Ser	Pro	Thr
465					470					475				480	
Ala	Gly	Ala	Glu	Ala	Val	Ser	Gly	Gly	Gly	Ser	Gly	Thr	Gly	Ala	Thr
				485				490					495		
Pro	Gly	Ala	Pro	Leu	Cys	Cys	Thr	Leu	Cys	Arg	Glu	Arg	Leu	Glu	Asp
			500					505					510		
Thr	His	Phe	Val	Gln	Cys	Pro	Pro	Val	Pro	Glu	His	Lys	Phe	Cys	Phe
515							520					525			
Pro	Cys	Ser	Arg	Lys	Phe	Ile	Lys	Ala	Gln	Gly	Pro	Ala	Gly	Glu	Val

530		535		540
Tyr Cys Pro Ser Gly Asp	Lys Cys Pro Leu Val Gly Ser Ser Val Pro			
545	550	555		560
Trp Ala Phe Met Gln Gly Glu Ile Ala Thr Ile Leu Ala Gly Asp Ile				
	565	570		575
Lys Val Lys Lys Glu Arg Asp Pro				
	580	584		

<210> 3512

<211> 664

<212> PRT

<213> Homo sapiens

<400> 3512

Asn Thr Asn Ser Ser Ser Val Thr Asn Ser Ala Ala Gly Val Glu Asp	
1 5 10 15	
Leu Asn Ile Val Gln Val Thr Val Pro Asp Asn Glu Lys Glu Arg Leu	
20 25 30	
Ser Ser Ile Glu Lys Ile Lys Gln Leu Arg Glu Gln Val Asn Asp Leu	
35 40 45	
Phe Ser Arg Lys Phe Gly Glu Ala Ile Gly Val Asp Phe Pro Val Lys	
50 55 60	
Val Pro Tyr Arg Lys Ile Thr Phe Asn Pro Gly Cys Val Val Ile Asp	
65 70 75 80	
Gly Met Pro Pro Gly Val Val Phe Lys Ala Pro Gly Tyr Leu Glu Ile	
85 90 95	
Ser Ser Met Arg Arg Ile Leu Glu Ala Ala Glu Phe Ile Lys Phe Thr	
100 105 110	
Val Ile Arg Pro Leu Pro Gly Leu Glu Leu Ser Asn Gly Glu Tyr Ser	
115 120 125	
Thr Val Gly Lys Arg Lys Ile Asp Gln Glu Gly Arg Val Phe Gln Glu	
130 135 140	
Lys Trp Glu Arg Ala Tyr Phe Phe Val Glu Val Gln Asn Ile Ser Thr	
145 150 155 160	
Cys Leu Ile Cys Lys Arg Ser Met Ser Val Ser Lys Glu Tyr Asn Leu	
165 170 175	
Arg Arg His Tyr Gln Thr Asn His Ser Lys His Tyr Asp Gln Tyr Met	
180 185 190	
Glu Arg Met Arg Asp Glu Lys Leu His Glu Leu Lys Lys Gly Leu Arg	
195 200 205	
Lys Tyr Leu Leu Gly Leu Ser Asp Thr Glu Cys Pro Glu Gln Lys Gln	
210 215 220	
Val Phe Ala Asn Pro Ser Pro Thr Gln Lys Ser Pro Val Gln Pro Val	
225 230 235 240	
Glu Asp Leu Ala Gly Asn Leu Trp Glu Lys Leu Arg Glu Lys Ile Arg	
245 250 255	
Ser Phe Val Ala Tyr Ser Ile Ala Ile Asp Glu Ile Thr Asp Ile Asn	
260 265 270	
Asn Thr Thr Gln Leu Ala Ile Phe Ile Arg Gly Val Asp Glu Asn Phe	
275 280 285	
Asp Val Ser Glu Glu Leu Leu Asp Thr Val Pro Met Thr Gly Thr Lys	
290 295 300	
Ser Gly Asn Glu Ile Phe Ser Arg Val Glu Lys Ser Leu Lys Asn Phe	
305 310 315 320	
Cys Ile Asn Trp Ser Lys Leu Val Ser Val Ala Ser Thr Gly Thr Pro	
325 330 335	
Pro Met Val Asp Ala Asn Asn Gly Leu Val Thr Lys Leu Lys Ser Arg	
340 345 350	
Val Ala Thr Phe Cys Lys Gly Ala Glu Leu Lys Ser Ile Cys Cys Ile	
355 360 365	
Ile His Pro Glu Ser Leu Cys Ala Gln Lys Leu Lys Met Asp His Val	

370	375	380
Met Asp Val Val Val	Lys Ser Val Asn Trp	Ile Cys Ser Arg Gly Leu
385	390	395
Asn His Ser Glu Phe	Thr Thr Leu Leu Tyr Glu	Leu Asp Ser Gln Tyr
405	410	415
Gly Ser Leu Leu Tyr	Tyr Thr Glu Ile Lys Trp	Leu Ser Arg Gly Leu
420	425	430
Val Leu Lys Arg Phe	Phe Glu Ser Leu Glu Glu	Ile Asp Ser Phe Met
435	440	445
Ser Ser Arg Gly Lys	Pro Leu Pro Gln Leu Ser	Ser Ile Asp Trp Ile
450	455	460
Arg Asp Leu Ala Phe	Leu Val Asp Met Thr Met	His Leu Asn Ala Leu
465	470	475
Asn Ile Ser Leu Gln	Gly His Ser Gln Ile Val	Thr Gln Met Tyr Asp
485	490	495
Leu Ile Arg Ala Phe	Leu Ala Lys Leu Cys Leu	Trp Glu Thr His Leu
500	505	510
Thr Arg Asn Asn Leu	Ala His Phe Pro Thr Leu	Lys Leu Val Ser Arg
515	520	525
Asn Glu Ser Asp Gly	Leu Asn Tyr Ile Pro Lys	Ile Ala Glu Leu Lys
530	535	540
Thr Glu Phe Gln Lys	Arg Leu Ser Asp Phe Lys	Leu Tyr Glu Ser Glu
545	550	555
Leu Thr Leu Phe Ser	Ser Pro Phe Ser Thr Lys	Ile Asp Ser Val His
565	570	575
Glu Glu Leu Gln Met	Glu Val Ile Asp Leu Gln	Cys Asn Thr Val Leu
580	585	590
Lys Thr Lys Tyr Asp	Lys Val Gly Ile Pro Glu	Phe Tyr Lys Tyr Leu
595	600	605
Trp Gly Ser Tyr Pro	Lys Tyr Lys His His Cys	Ala Lys Ile Leu Ser
610	615	620
Met Phe Gly Ser Thr	Tyr Ile Cys Glu Gln Leu	Phe Ser Ile Met Lys
625	630	635
Leu Ser Lys Thr Lys	Tyr Cys Ser Gln Leu Lys	Asp Ser Gln Trp Asp
645	650	655
Ser Val Leu His Ile	Ala Thr	
660	663	

<210> 3513

<211> 442

<212> PRT

<213> Homo sapiens

<400> 3513

Phe Lys Ser Leu Leu	Ser Val Lys Trp Phe	Cys Phe Ser Ile Leu Val
1	5	10
Leu Ile Phe Leu Gly	Thr Arg Cys Tyr Trp	Glu Met Thr Gln Ser Arg
20	25	30
Pro Ser Pro Asp Pro	His Arg Gly Arg Trp	Glu Gly Gly Arg Ser Arg
35	40	45
Pro Lys Gly Gly Glu	Glu Gly Arg Arg Arg	Thr Arg Val Pro Gly Leu
50	55	60
Val Thr Ala Ser Gly	Pro Gly Asn Pro Leu	Pro Asp Arg Leu Gly Glu
65	70	75
Met Ala Gly Gly Arg	His Arg Arg Val Val	Gly Thr Leu His Leu Leu
85	90	95
Leu Leu Val Ala Ala	Leu Pro Trp Ala Ser	Arg Gly Val Ser Pro Ser
100	105	110
Ala Ser Ala Trp Pro	Glu Glu Lys Asn Tyr	His Gln Pro Ala Ile Leu
115	120	125
Asn Ser Ser Ala Leu	Arg Gln Ile Ala Glu	Gly Thr Ser Ile Ser Glu

130	135	140
Met Trp Gln Asn Asp Leu	Gln Pro Leu Leu Ile Glu Arg Tyr Pro Gly	
145	150	155
Ser Pro Gly Ser Tyr Ala Ala Arg Gln His Ile Met Gln Arg Ile Gln		160
	165	170
Arg Leu Gln Ala Asp Trp Val Leu Glu Ile Asp Thr Phe Leu Ser Gln		175
	180	185
Thr Pro Tyr Gly Tyr Arg Ser Phe Ser Asn Ile Ile Ser Thr Leu Asn		190
	195	200
Pro Thr Ala Lys Arg His Leu Val Leu Ala Cys His Tyr Asp Ser Lys		205
	210	215
Tyr Phe Ser His Trp Asn Asn Arg Val Phe Val Gly Ala Thr Asp Ser		220
225	230	235
Ala Val Pro Cys Ala Met Met Leu Glu Leu Ala Arg Ala Leu Asp Lys		240
	245	250
Lys Leu Leu Ser Leu Lys Thr Val Ser Asp Ser Lys Pro Asp Leu Ser		255
	260	265
Leu Gln Leu Ile Phe Phe Asp Gly Glu Glu Ala Phe Leu His Trp Ser		270
	275	280
Pro Gln Asp Ser Leu Tyr Gly Ser Arg His Leu Ala Ala Lys Met Ala		285
	290	295
Ser Thr Pro His Pro Pro Gly Ala Arg Gly Thr Ser Gln Leu His Gly		300
305	310	315
Met Asp Leu Leu Val Leu Leu Asp Leu Ile Gly Ala Pro Asn Pro Thr		320
	325	330
Phe Pro Asn Phe Phe Pro Asn Ser Ala Arg Trp Phe Glu Arg Leu Gln		335
	340	345
Ala Ile Glu His Glu Leu His Glu Leu Gly Leu Leu Lys Asp His Ser		350
	355	360
Leu Glu Gly Arg Tyr Phe Gln Asn Tyr Ser Tyr Gly Gly Val Ile Gln		365
	370	375
Asp Asp His Ile Pro Phe Leu Arg Arg Gly Val Pro Val Leu His Leu		380
385	390	395
Ile Pro Ser Pro Phe Pro Glu Val Trp His Thr Met Asp Asp Asn Glu		400
	405	410
Glu Asn Leu Asp Glu Ser Thr Ile Asp Asn Leu Asn Lys Ile Leu Gln		415
	420	425
Val Phe Val Leu Glu Tyr Leu His Leu		430
	435	440
		441

<210> 3514

<211> 442

<212> PRT

<213> Homo sapiens

<400> 3514

Phe Lys Ser Leu Leu Ser Val Lys Trp Phe Cys Phe Ser Ile Leu Val	
1	5
Leu Ile Phe Leu Gly Thr Arg Cys Tyr Trp Glu Met Thr Gln Ser Arg	
	20
Pro Ser Pro Asp Pro His Arg Gly Arg Trp Glu Gly Gly Arg Ser Arg	
	35
Pro Lys Gly Gly Glu Glu Gly Arg Arg Arg Thr Arg Val Pro Gly Leu	
	50
Val Thr Ala Ser Gly Pro Gly Asn Pro Leu Pro Asp Arg Leu Gly Glu	
65	70
Met Ala Gly Gly Arg His Arg Arg Val Val Gly Thr Leu His Leu Leu	
	85
Leu Leu Val Ala Ala Leu Pro Trp Ala Ser Arg Gly Val Ser Pro Ser	
	100
Ala Ser Ala Trp Pro Glu Glu Lys Asn Tyr His Gln Pro Ala Ile Leu	
	105
	110

115	120	125
Asn Ser Ser Ala Leu Arg Gln Ile Ala Glu Gly Thr Ser Ile Ser Glu		
130	135	140
Met Trp Gln Asn Asp Leu Gln Pro Leu Leu Ile Glu Arg Tyr Pro Gly		
145	150	155
Ser Pro Gly Ser Tyr Ala Ala Arg Gln His Ile Met Gln Arg Ile Gln		
165	170	175
Arg Leu Gln Ala Asp Trp Val Leu Glu Ile Asp Thr Phe Leu Ser Gln		
180	185	190
Thr Pro Tyr Gly Tyr Arg Ser Phe Ser Asn Ile Ile Ser Thr Leu Asn		
195	200	205
Pro Thr Ala Lys Arg His Leu Val Leu Ala Cys His Tyr Asp Ser Lys		
210	215	220
Tyr Phe Ser His Trp Asn Asn Arg Val Phe Val Gly Ala Thr Asp Ser		
225	230	235
Ala Val Pro Cys Ala Met Met Leu Glu Leu Ala Arg Ala Leu Asp Lys		
245	250	255
Lys Leu Leu Ser Leu Lys Thr Val Ser Asp Ser Lys Pro Asp Leu Ser		
260	265	270
Leu Gln Leu Ile Phe Phe Asp Gly Glu Glu Ala Phe Leu His Trp Ser		
275	280	285
Pro Gln Asp Ser Leu Tyr Gly Ser Arg His Leu Ala Ala Lys Met Ala		
290	295	300
Ser Thr Pro His Pro Pro Gly Ala Arg Gly Thr Ser Gln Leu His Gly		
305	310	315
Met Asp Leu Leu Val Leu Leu Asp Leu Ile Gly Ala Pro Asn Pro Thr		
325	330	335
Phe Pro Asn Phe Phe Pro Asn Ser Ala Arg Trp Phe Glu Arg Leu Gln		
340	345	350
Ala Ile Glu His Glu Leu His Glu Leu Gly Leu Leu Lys Asp His Ser		
355	360	365
Leu Glu Gly Arg Tyr Phe Gln Asn Tyr Ser Tyr Gly Gly Val Ile Gln		
370	375	380
Asp Asp His Ile Pro Phe Leu Arg Arg Gly Val Pro Val Leu His Leu		
385	390	395
Ile Pro Ser Pro Phe Pro Glu Val Trp His Thr Met Asp Asp Asn Glu		
405	410	415
Glu Asn Leu Asp Glu Ser Thr Ile Asp Asn Leu Asn Lys Ile Leu Gln		
420	425	430
Val Phe Val Leu Glu Tyr Leu His Leu		
435	440	441

<210> 3515

<211> 216

<212> PRT

<213> Homo sapiens

<400> 3515

Leu Cys Arg Asp Leu Thr Thr Thr Met Ser Ser Lys Arg Thr Lys Thr		
1	5	10
Lys Thr Lys Lys Arg Pro Gln Arg Ala Thr Ser Asn Val Phe Ala Met		
20	25	30
Phe Asp Gln Ser Gln Ile Gln Glu Phe Lys Glu Ala Phe Asn Met Ile		
35	40	45
Asp Gln Asn Arg Asp Gly Phe Ile Asp Lys Glu Asp Leu His Asp Met		
50	55	60
Leu Ala Ser Leu Gly Lys Asn Pro Thr Asp Glu Tyr Leu Asp Ala Met		
65	70	75
Met Asn Glu Ala Pro Gly Pro Ile Asn Phe Thr Met Phe Leu Thr Met		
85	90	95
Phe Gly Glu Lys Leu Asn Gly Thr Asp Pro Glu Asp Val Ile Arg Asn		

[illegible]

```
<210> 3516
<211> 1727
<212> PRT
<213> Homo sapiens
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Met	Ala	Ala	Ala	Pro	Ser	Ala	Leu	Leu	Leu	Leu	Pro	Pro	Phe	Pro	Val	
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Leu	Ser	Thr	Tyr	Arg	Leu	Gln	Ser	Arg	Ser	Arg	Pro	Ser	Ala	Pro	Glu	
			20					25					30			
Thr	Asp	Asp	Ser	Arg	Val	Gly	Gly	Ile	Met	Arg	Gly	Glu	Lys	Asn	Tyr	
		35					40					45				
Tyr	Phe	Arg	Gly	Ala	Ala	Gly	Asp	His	Gly	Ser	Cys	Pro	Thr	Thr	Thr	
	50					55					60					
Ser	Pro	Leu	Ala	Ser	Ala	Leu	Leu	Met	Pro	Ser	Glu	Ala	Val	Ser	Ser	
65					70					75					80	
Ser	Trp	Ser	Glu	Ser	Gly	Gly	Gly	Leu	Ser	Gly	Gly	Asp	Glu	Glu	Asp	
				85					90					95		
Thr	Arg	Leu	Leu	Gln	Leu	Leu	Arg	Thr	Ala	Arg	Asp	Pro	Ser	Glu	Ala	
			100					105						110		
Phe	Gln	Ala	Leu	Gln	Ala	Ala	Leu	Pro	Arg	Arg	Gly	Gly	Arg	Leu	Gly	
		115					120					125				
Phe	Pro	Arg	Arg	Lys	Glu	Ala	Leu	Tyr	Arg	Ala	Leu	Gly	Arg	Val	Leu	
	130					135					140					
Val	Glu	Gly	Gly	Ser	Asp	Glu	Lys	Arg	Leu	Cys	Leu	Gln	Leu	Leu	Ser	
145					150					155					160	
Asp	Val	Leu	Arg	Gly	Gln	Gly	Glu	Ala	Gly	Gln	Leu	Glu	Glu	Ala	Phe	
				165					170					175		
Ser	Leu	Ala	Leu	Leu	Pro	Gln	Leu	Val	Val	Ser	Leu	Arg	Glu	Glu	Asn	
			180					185					190			
Pro	Ala	Leu	Arg	Lys	Asp	Ala	Leu	Gln	Ile	Leu	His	Ile	Cys	Leu	Lys	
		195					200					205				
Arg	Ser	Pro	Gly	Glu	Val	Leu	Arg	Thr	Leu	Ile	Gln	Gln	Gly	Leu	Glu	
		210				215						220				
Ser	Thr	Asp	Ala	Arg	Leu	Arg	Ala	Ser	Thr	Ala	Leu	Leu	Leu	Pro	Ile	
225					230					235					240	
Leu	Leu	Thr	Thr	Glu	Asp	Leu	Leu	Leu	Gly	Leu	Asp	Leu	Thr	Glu	Val	
				245					250					255		
Ile	Ile	Ser	Leu	Ala	Arg	Lys	Leu	Gly	Asp	Gln	Glu	Thr	Glu	Glu	Glu	
			260					265					270			
Ser	Glu	Thr	Ala	Phe	Ser	Ala	Leu	Gln	Gln	Ile	Gly	Glu	Arg	Leu	Gly	
		275					280					285				
Gln	Asp	Arg	Phe	Gln	Ser	Tyr	Ile	Ser	Arg	Leu	Pro	Ser	Ala	Leu	Arg	
	290					295					300					
Arg	His	Tyr	Asn	Arg	Arg	Leu	Glu	Ser	Gln	Phe	Gly	Ser	Gln	Val	Pro	

305					310					315				320	
Tyr	Tyr	Leu	Glu	Leu	Glu	Ala	Ser	Gly	Phe	Pro	Glu	Asp	Pro	Leu	Pro
				325					330					335	
Cys	Ala	Val	Thr	Leu	Ser	Asn	Ser	Asn	Leu	Lys	Phe	Gly	Ile	Ile	Pro
				340				345					350		
Gln	Glu	Leu	His	Ser	Arg	Leu	Leu	Asp	Gln	Glu	Asp	Tyr	Lys	Asn	Arg
			355				360					365			
Thr	Gln	Ala	Val	Glu	Glu	Leu	Lys	Gln	Val	Leu	Gly	Lys	Phe	Asn	Pro
			370				375					380			
Ser	Ser	Thr	Pro	His	Ser	Ser	Leu	Val	Gly	Phe	Ile	Ser	Leu	Leu	Tyr
385					390					395					400
Asn	Leu	Leu	Asp	Asp	Ser	Asn	Phe	Lys	Val	Val	His	Gly	Thr	Leu	Glu
				405					410					415	
Val	Leu	His	Leu	Leu	Val	Ile	Arg	Leu	Gly	Glu	Gln	Val	Gln	Gln	Phe
				420				425					430		
Leu	Gly	Pro	Val	Ile	Ala	Ala	Ser	Val	Lys	Val	Leu	Ala	Asp	Asn	Lys
				435			440					445			
Leu	Val	Ile	Lys	Gln	Glu	Tyr	Met	Lys	Ile	Phe	Leu	Lys	Leu	Met	Lys
						455					460				
Glu	Val	Gly	Pro	Gln	Gln	Val	Leu	Cys	Leu	Leu	Leu	Glu	His	Leu	Lys
465					470					475					480
His	Lys	His	Ser	Arg	Val	Arg	Glu	Glu	Val	Val	Asn	Ile	Cys	Ile	Cys
				485					490					495	
Ser	Leu	Leu	Thr	Tyr	Pro	Ser	Glu	Asp	Phe	Asp	Leu	Pro	Lys	Leu	Ser
				500				505					510		
Phe	Asp	Leu	Ala	Pro	Ala	Leu	Val	Asp	Ser	Lys	Arg	Arg	Val	Arg	Gln
				515			520						525		
Ala	Ala	Leu	Glu	Ala	Phe	Ala	Val	Leu	Ala	Ser	Ser	Met	Gly	Ser	Gly
				530			535					540			
Lys	Thr	Ser	Ile	Leu	Phe	Lys	Ala	Val	Asp	Thr	Val	Glu	Leu	Gln	Asp
545					550					555					560
Asn	Gly	Asp	Gly	Val	Met	Asn	Ala	Val	Gln	Ala	Arg	Leu	Ala	Arg	Lys
				565					570					575	
Thr	Leu	Pro	Arg	Leu	Thr	Glu	Gln	Gly	Phe	Val	Glu	Tyr	Ala	Val	Leu
				580				585					590		
Met	Pro	Ser	Ser	Ala	Gly	Gly	Arg	Ser	Asn	His	Leu	Ala	His	Gly	Ala
				595			600					605			
Asp	Thr	Asp	Trp	Leu	Leu	Ala	Gly	Asn	Arg	Thr	Gln	Ser	Ala	His	Cys
						615					620				
His	Cys	Gly	Asp	His	Val	Arg	Asp	Ser	Met	His	Ile	Tyr	Gly	Ser	Tyr
625					630					635					640
Ser	Pro	Thr	Ile	Cys	Thr	Arg	Arg	Val	Leu	Ser	Ala	Gly	Lys	Gly	Lys
				645					650					655	
Asn	Lys	Leu	Pro	Trp	Glu	Asn	Glu	Gln	Pro	Gly	Ile	Met	Gly	Glu	Asn
				660				665					670		
Gln	Thr	Ser	Thr	Ser	Lys	Asp	Ile	Glu	Gln	Phe	Ser	Thr	Tyr	Asp	Phe
				675				680					685		
Ile	Pro	Ser	Ala	Lys	Leu	Lys	Leu	Ser	Gln	Gly	Met	Pro	Val	Asn	Asp
						695					700				
Asp	Leu	Cys	Phe	Ser	Arg	Lys	Arg	Val	Ser	Arg	Asn	Leu	Phe	Gln	Asn
705					710					715					720
Ser	Arg	Asp	Phe	Asn	Pro	Asp	Cys	Leu	Pro	Leu	Cys	Ala	Ala	Gly	Thr
				725					730					735	
Thr	Gly	Thr	His	Gln	Thr	Asn	Leu	Ser	Gly	Lys	Cys	Ala	Gln	Leu	Gly
				740				745					750		
Phe	Ser	Gln	Ile	Cys	Gly	Lys	Thr	Gly	Ser	Val	Gly	Ser	Asp	Leu	Gln
				755				760					765		
Phe	Leu	Gly	Thr	Thr	Ser	Ser	His	Gln	Glu	Lys	Val	Tyr	Ala	Ser	Leu
						775					780				
Asn	Phe	Gly	Ser	Lys	Thr	Gln	Gln	Thr	Phe	Gly	Ser	Gln	Thr	Glu	Cys
785					790					795					800
Thr	Ser	Ser	Asn	Gly	Gln	Asn	Pro	Ser	Pro	Gly	Ala	Tyr	Ile	Leu	Pro
				805					810					815	
Ser	Tyr	Pro	Val	Ser	Ser	Pro	Arg	Thr	Ser	Pro	Lys	His	Thr	Ser	Pro

			820					825					830			
Leu	Ile	Ile	Ser	Pro	Lys	Lys	Ser	Gln	Asp	Asn	Ser	Val	Asn	Phe	Ser	
		835						840					845			
Asn	Ser	Trp	Pro	Leu	Lys	Ser	Phe	Glu	Gly	Leu	Ser	Lys	Pro	Lys	Ser	
	850					855					860					
His	Arg	Arg	Ser	Leu	Ser	Ala	Gln	Lys	Ser	Ser	Asp	Pro	Thr	Gly	Arg	
865					870						875				880	
Asn	His	Gly	Glu	Asn	Ser	Gln	Glu	Lys	Pro	Pro	Val	Gln	Leu	Thr	Pro	
			885						890					895		
Ala	Leu	Val	Arg	Ser	Pro	Ser	Ser	Arg	Arg	Gly	Leu	Asn	Gly	Thr	Lys	
			900					905					910			
Pro	Val	Pro	Pro	Ile	Pro	Arg	Gly	Ile	Ser	Leu	Leu	Pro	Asp	Lys	Ala	
		915					920					925				
Asp	Leu	Ser	Thr	Val	Gly	His	Lys	Lys	Lys	Glu	Pro	Asp	Asp	Ile	Trp	
	930					935					940					
Lys	Cys	Glu	Lys	Asp	Ser	Leu	Pro	Ile	Asp	Leu	Ser	Glu	Leu	Asn	Phe	
945					950					955					960	
Lys	Asp	Lys	Asp	Leu	Asp	Gln	Glu	Glu	Met	His	Ser	Ser	Leu	Arg	Ser	
			965						970					975		
Leu	Arg	Asn	Ser	Ala	Ala	Lys	Lys	Arg	Ala	Lys	Leu	Ser	Gly	Ser	Thr	
			980					985					990			
Ser	Asp	Leu	Glu	Ser	Pro	Asp	Ser	Ala	Met	Lys	Leu	Asp	Leu	Thr	Met	
	995					1000						1005				
Asp	Ser	Pro	Ser	Leu	Ser	Ser	Ser	Pro	Asn	Ile	Asn	Ser	Tyr	Ser	Glu	
	1010					1015					1020					
Ser	Gly	Val	Tyr	Ser	Gln	Glu	Ser	Leu	Thr	Ser	Ser	Leu	Ser	Thr	Thr	
1025					1030					1035					1040	
Pro	Gln	Gly	Lys	Arg	Ile	Met	Ser	Asp	Ile	Phe	Pro	Thr	Phe	Gly	Ser	
			1045						1050					1055		
Lys	Pro	Cys	Pro	Thr	Arg	Leu	Ser	Ser	Ala	Lys	Lys	Lys	Ile	Ser	His	
			1060					1065					1070			
Ile	Ala	Glu	Gln	Ser	Pro	Ser	Ala	Gly	Ser	Ser	Ser	Asn	Pro	Gln	Gln	
		1075					1080					1085				
Ile	Ser	Ser	Phe	Asp	Phe	Thr	Thr	Thr	Lys	Ala	Leu	Ser	Glu	Asp	Ser	
	1090					1095					1100					
Val	Val	Val	Val	Gly	Lys	Gly	Val	Phe	Gly	Ser	Leu	Ser	Ser	Ala	Pro	
1105					1110					1115					1120	
Ala	Thr	Cys	Ser	Gln	Ser	Val	Ile	Ser	Ser	Val	Glu	Asn	Gly	Asp	Thr	
			1125						1130					1135		
Phe	Ser	Ile	Lys	Gln	Ser	Ile	Glu	Pro	Ser	Gly	Ile	Tyr	Gly	Arg		
		1140					1145					1150				
Ser	Val	Gln	Gln	Asn	Ile	Ser	Ser	Tyr	Leu	Asp	Val	Glu	Asn	Glu	Lys	
	1155					1160					1165					
Asp	Ala	Lys	Val	Ser	Ile	Ser	Lys	Ser	Thr	Tyr	Asn	Lys	Met	Arg	Gln	
	1170					1175					1180					
Lys	Arg	Lys	Glu	Glu	Lys	Glu	Leu	Phe	His	Asn	Lys	Asp	Cys	Glu	Lys	
1185					1190					1195					1200	
Lys	Glu	Lys	Asn	Ser	Trp	Glu	Arg	Met	Arg	His	Thr	Gly	Thr	Glu	Lys	
			1205						1210					1215		
Met	Ala	Ser	Glu	Ser	Glu	Thr	Pro	Thr	Gly	Ala	Ile	Ser	Gln	Tyr	Lys	
		1220						1225					1230			
Glu	Arg	Met	Pro	Ser	Val	Thr	His	Ser	Pro	Glu	Ile	Met	Asp	Leu	Ser	
		1235					1240					1245				
Glu	Leu	Arg	Pro	Phe	Ser	Lys	Pro	Glu	Ile	Ala	Leu	Thr	Glu	Ala	Leu	
	1250					1255					1260					
Arg	Leu	Leu	Ala	Asp	Glu	Asp	Trp	Glu	Lys	Lys	Ile	Glu	Gly	Leu	Asn	
1265					1270					1275					1280	
Phe	Ile	Arg	Cys	Leu	Ala	Ala	Phe	His	Ser	Glu	Ile	Leu	Asn	Thr	Lys	
			1285						1290					1295		
Leu	His	Glu	Thr	Asn	Phe	Ala	Val	Val	Gln	Glu	Val	Lys	Asn	Leu	Arg	
		1300						1305				1310				
Ser	Gly	Val	Ser	Arg	Ala	Ala	Val	Val	Cys	Leu	Ser	Asp	Leu	Phe	Thr	
	1315						1320					1325				
Tyr	Leu	Lys	Lys	Ser	Met	Asp	Gln	Glu	Leu	Asp	Thr	Thr	Val	Lys	Val	

1330 1335 1340
 Leu Leu His Lys Ala Gly Glu Ser Asn Thr Phe Ile Arg Glu Asp Val
 1345 1350 1355 1360
 Asp Lys Ala Leu Arg Ala Met Val Asn Asn Val Thr Pro Ala Arg Ala
 1365 1370 1375
 Val Val Ser Leu Ile Asn Gly Gly Gln Arg Tyr Tyr Gly Arg Lys Met
 1380 1385 1390
 Leu Phe Phe Met Met Cys His Pro Asn Phe Glu Lys Met Leu Glu Lys
 1395 1400 1405
 Tyr Val Pro Ser Lys Asp Leu Pro Tyr Ile Lys Asp Ser Val Arg Asn
 1410 1415 1420
 Leu Gln Gln Lys Gly Leu Gly Glu Ile Pro Leu Asp Thr Pro Ser Ala
 1425 1430 1435 1440
 Lys Gly Arg Arg Ser His Thr Gly Ser Val Gly Asn Thr Arg Ser Ser
 1445 1450 1455
 Ser Val Ser Arg Asp Ala Phe Asn Ser Ala Glu Arg Ala Val Thr Glu
 1460 1465 1470
 Val Arg Glu Val Thr Arg Lys Ser Val Pro Arg Asn Ser Leu Glu Ser
 1475 1480 1485
 Ala Glu Tyr Leu Lys Leu Ile Thr Gly Leu Leu Asn Ala Lys Asp Phe
 1490 1495 1500
 Arg Asp Arg Ile Asn Gly Ile Lys Gln Leu Leu Ser Asp Thr Glu Asn
 1505 1510 1515 1520
 Asn Gln Asp Leu Val Val Gly Asn Ile Val Lys Ile Phe Asp Ala Phe
 1525 1530 1535
 Lys Ser Arg Leu His Asp Ser Asn Ser Lys Val Asn Leu Val Ala Leu
 1540 1545 1550
 Glu Thr Met His Lys Met Ile Pro Leu Leu Arg Asp His Leu Ser Pro
 1555 1560 1565
 Ile Ile Asn Met Leu Ile Pro Ala Ile Val Asp Asn Asn Leu Asn Ser
 1570 1575 1580
 Lys Asn Pro Gly Ile Tyr Ala Ala Ala Thr Asn Val Val Gln Ala Leu
 1585 1590 1595 1600
 Ser Gln His Val Asp Asn Tyr Leu Leu Leu Gln Pro Phe Cys Thr Lys
 1605 1610 1615
 Ala Gln Phe Leu Asn Gly Lys Ala Lys Gln Asp Met Thr Glu Lys Leu
 1620 1625 1630
 Ala Asp Ile Val Thr Glu Leu Tyr Gln Arg Lys Pro His Ala Thr Glu
 1635 1640 1645
 Gln Lys Val Leu Val Val Leu Trp His Leu Leu Gly Asn Met Thr Asn
 1650 1655 1660
 Ser Gly Ser Leu Pro Gly Ala Gly Gly Asn Ile Arg Thr Ala Thr Ala
 1665 1670 1675 1680
 Lys Leu Ser Lys Ala Leu Phe Ala Gln Met Gly Gln Asn Leu Leu Asn
 1685 1690 1695
 Gln Ala Ala Ser Gln Pro Pro His Ile Lys Lys Ser Leu Glu Glu Leu
 1700 1705 1710
 Leu Asp Met Thr Ile Leu Asn Glu Leu
 1715 1720 1721

<210> 3517
 <211> 402
 <212> PRT
 <213> Homo sapiens

<400> 3517
 Gln Asp Leu Lys Pro Val Leu Asp Arg Glu Tyr Leu Ala Ile Tyr Leu
 1 5 10 15
 Lys Met Val Phe Phe Thr Cys Asn Ala Cys Gly Glu Ser Val Lys Lys
 20 25 30
 Ile Gln Val Glu Lys His Val Ser Val Cys Arg Asn Cys Glu Cys Leu

35	40	45
Ser Cys Ile Asp Cys Gly Lys Asp Phe Trp Gly Asp Asp Tyr Lys Asn		
50	55	60
His Val Lys Cys Ile Ser Glu Asp Gln Lys Tyr Gly Gly Lys Gly Tyr		
65	70	75
Glu Lys Val Lys Thr His Lys Gly Asp Ala Ser Lys Gln Gln Ala Trp		
85	90	95
Ile Gln Lys Ile Ser Glu Leu Ile Lys Arg Pro Asn Val Ser Pro Lys		
100	105	110
Val Arg Glu Leu Leu Glu Gln Ile Ser Ala Phe Asp Asn Val Pro Gln		
115	120	125
Lys Lys Ala Lys Phe Gln Asn Trp Met Lys Asn Ser Leu Lys Val His		
130	135	140
Asn Glu Ser Ile Leu Asp Gln Val Trp Asn Ile Phe Ser Glu Ala Ser		
145	150	155
Asn Ser Glu Pro Val Asn Lys Glu Gln Asp Gln Arg Pro Leu His Pro		
165	170	175
Val Ala Asn Pro His Ala Glu Ile Ser Thr Lys Val Pro Ala Ser Lys		
180	185	190
Val Lys Asp Ala Val Glu Gln Gln Gly Glu Val Lys Lys Asn Lys Arg		
195	200	205
Glu Arg Lys Glu Glu Arg Gln Lys Lys Arg Lys Arg Glu Lys Lys Glu		
210	215	220
Leu Lys Leu Glu Asn His Gln Glu Asn Ser Arg Asn Gln Lys Pro Lys		
225	230	235
Lys Arg Lys Lys Gly Gln Glu Ala Asp Leu Glu Ala Gly Gly Glu Glu		
245	250	255
Val Pro Glu Ala Asn Gly Ser Ala Gly Lys Arg Ser Lys Lys Lys Lys		
260	265	270
Gln Arg Lys Asp Ser Ala Ser Glu Glu Glu Ala Arg Val Gly Ala Gly		
275	280	285
Lys Arg Lys Arg Arg His Ser Lys Val Glu Thr Asp Ser Lys Lys Lys		
290	295	300
Lys Met Lys Leu Pro Glu His Pro Glu Gly Gly Glu Pro Glu Asp Asp		
305	310	315
Glu Ala Pro Ala Lys Gly Lys Phe Asn Trp Lys Gly Thr Ile Lys Ala		
325	330	335
Ile Leu Lys Gln Ala Pro Asp Asn Glu Ile Thr Ile Lys Lys Leu Arg		
340	345	350
Lys Lys Val Leu Ala Gln Tyr Tyr Thr Val Thr Asp Glu His His Arg		
355	360	365
Ser Glu Glu Glu Leu Leu Val Ile Phe Asn Lys Lys Ile Ser Lys Asn		
370	375	380
Pro Thr Phe Lys Leu Leu Lys Asp Lys Val Lys Leu Val Lys		
385	390	395
		398

<210> 3518

<211> 211

<212> PRT

<213> Homo sapiens

<400> 3518

Ala Pro Asp Ser Asn Ala Arg Asn Asp His Phe Asp Ala Cys Ser Leu	
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Arg Val Gln Ala Gly Leu Ser Ser Ala Gly Pro Ala Leu Gly Asn Ser	
20	25
Gly Leu Ala Ala Leu Met Ala Ser Pro Ser Lys Ala Val Ile Val Pro	
35	40
Gly Asn Gly Gly Gly Asp Val Thr Thr His Gly Trp Tyr Gly Trp Val	
50	55
Lys Lys Glu Leu Glu Lys Ile Pro Gly Phe Gln Cys Leu Ala Lys Asn	

65					70					75				80
Met	Pro	Asp	Pro	Ile	Thr	Ala	Arg	Glu	Ser	Ile	Trp	Leu	Pro	Phe Met
				85					90					95
Glu	Thr	Glu	Leu	His	Cys	Asp	Glu	Lys	Thr	Ile	Ile	Ile	Gly	His Ser
			100					105					110	
Ser	Gly	Ala	Ile	Ala	Ala	Met	Arg	Tyr	Ala	Glu	Thr	His	Arg	Val Tyr
		115					120					125		
Ala	Ile	Val	Leu	Val	Ser	Ala	Tyr	Thr	Ser	Asp	Leu	Gly	Asp	Glu Asn
		130				135					140			
Glu	Arg	Ala	Ser	Gly	Tyr	Phe	Thr	Arg	Pro	Trp	Gln	Trp	Glu	Lys Ile
145					150				155					160
Lys	Ala	Asn	Cys	Pro	Tyr	Ile	Val	Gln	Phe	Gly	Ser	Thr	Asp	Asp Pro
			165						170					175
Phe	Leu	Pro	Trp	Lys	Glu	Gln	Gln	Glu	Val	Ala	Asp	Ser	Trp	Lys Pro
		180						185					190	
Asn	Cys	Thr	Asn	Ser	Leu	Thr	Val	Ala	Thr	Phe	Arg	Thr	Gln	Ser Phe
		195					200						205	
Met	Asn													
	210													

<210> 3519

<211> 733

<212> PRT

<213> Homo sapiens

<400> 3519

Val	Arg	Glu	Thr	Arg	Arg	Glu	Met	Ala	Met	Ala	Met	Ser	Asp	Ser	Gly
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Ala	Ser	Arg	Leu	Arg	Arg	Gln	Leu	Glu	Ser	Gly	Gly	Phe	Glu	Ala	Arg
			20					25					30		
Leu	Tyr	Val	Lys	Gln	Leu	Ser	Gln	Gln	Ser	Asp	Gly	Asp	Arg	Asp	Leu
		35				40						45			
Gln	Glu	His	Arg	Gln	Arg	Ile	Gln	Ala	Leu	Ala	Glu	Glu	Thr	Ala	Gln
		50				55					60				
Asn	Leu	Lys	Arg	Asn	Val	Tyr	Gln	Asn	Tyr	Arg	Gln	Phe	Ile	Glu	Thr
65					70					75				80	
Ala	Arg	Glu	Ile	Ser	Tyr	Leu	Glu	Ser	Glu	Met	Tyr	Gln	Leu	Ser	His
			85						90					95	
Leu	Leu	Thr	Glu	Gln	Lys	Ser	Ser	Leu	Glu	Ser	Ile	Pro	Leu	Thr	Leu
			100					105					110		
Leu	Pro	Ala	Ala	Ala	Ala	Ala	Gly	Ala	Ala	Ala	Ala	Ser	Gly	Gly	Glu
		115					120						125		
Glu	Gly	Val	Gly	Gly	Ala	Gly	Gly	Arg	Asp	His	Leu	Arg	Gly	Gln	Ala
		130				135					140				
Gly	Phe	Phe	Ser	Thr	Pro	Gly	Gly	Ala	Ser	Arg	Asp	Gly	Ser	Gly	Pro
145					150				155					160	
Gly	Glu	Glu	Gly	Lys	Gln	Arg	Thr	Leu	Thr	Thr	Leu	Leu	Glu	Lys	Val
			165						170					175	
Glu	Gly	Cys	Arg	His	Leu	Leu	Glu	Thr	Pro	Gly	Gln	Tyr	Leu	Val	Tyr
		180					185						190		
Asn	Gly	Asp	Leu	Val	Glu	Tyr	Asp	Ala	Asp	His	Met	Ala	Gln	Leu	Gln
		195					200					205			
Arg	Val	His	Gly	Phe	Leu	Met	Asn	Asp	Cys	Leu	Leu	Val	Ala	Thr	Trp
		210				215						220			
Leu	Pro	Gln	Arg	Arg	Gly	Met	Tyr	Arg	Tyr	Asn	Ala	Leu	Tyr	Ser	Leu
225					230					235				240	
Asp	Gly	Leu	Ala	Val	Val	Asn	Val	Lys	Asp	Asn	Pro	Pro	Met	Lys	Asp
			245						250					255	
Met	Phe	Lys	Leu	Leu	Met	Phe	Pro	Glu	Asn	Arg	Ile	Phe	Gln	Ala	Glu
		260						265					270		
Asn	Ala	Lys	Ile	Lys	Arg	Glu	Trp	Leu	Glu	Val	Leu	Glu	Asp	Thr	Lys

275	280	285
Arg Ala Leu Ser Glu Lys	Arg Arg Arg Glu Gln Glu Glu Ala Ala Ala	
290	295	300
Pro Arg Gly Pro Pro Gln Val Thr Ser Lys Ala Thr Asn Pro Phe Glu		
305	310	315
Asp Asp Glu Glu Glu Glu Pro Ala Val Pro Glu Val Glu Glu Glu Lys		
325	330	335
Val Asp Leu Ser Met Glu Trp Ile Gln Glu Leu Pro Glu Asp Leu Asp		
340	345	350
Val Cys Ile Ala Gln Arg Asp Phe Glu Gly Ala Val Asp Leu Leu Asp		
355	360	365
Lys Leu Asn His Tyr Leu Glu Asp Lys Pro Ser Pro Pro Pro Val Lys		
370	375	380
Glu Leu Arg Ala Lys Val Glu Glu Arg Val Arg Gln Leu Thr Glu Val		
385	390	395
Leu Val Phe Glu Leu Ser Pro Asp Arg Ser Leu Arg Gly Gly Pro Lys		
405	410	415
Ala Thr Arg Arg Ala Val Ser Gln Leu Ile Arg Leu Gly Gln Cys Thr		
420	425	430
Lys Ala Cys Glu Leu Phe Leu Arg Asn Arg Ala Ala Val His Thr		
435	440	445
Ala Ile Arg Gln Leu Arg Ile Glu Gly Ala Thr Leu Leu Tyr Ile His		
450	455	460
Lys Leu Cys His Val Phe Phe Thr Ser Leu Leu Glu Thr Ala Arg Glu		
465	470	475
Phe Glu Ile Asp Phe Ala Gly Thr Asp Ser Gly Cys Tyr Ser Ala Phe		
485	490	495
Val Val Trp Ala Arg Ser Ala Met Gly Met Phe Val Asp Ala Phe Ser		
500	505	510
Lys Gln Val Phe Asp Ser Lys Glu Ser Leu Ser Thr Ala Ala Glu Cys		
515	520	525
Val Lys Val Ala Lys Glu His Cys Gln Gln Leu Gly Asp Ile Gly Leu		
530	535	540
Asp Leu Thr Phe Ile Ile His Ala Leu Leu Val Lys Asp Ile Gln Gly		
545	550	555
Ala Leu His Ser Tyr Lys Glu Ile Ile Ile Glu Ala Thr Lys His Arg		
565	570	575
Asn Ser Glu Glu Met Trp Arg Arg Met Asn Leu Met Thr Pro Glu Ala		
580	585	590
Leu Gly Lys Leu Lys Glu Glu Met Lys Ser Cys Gly Val Ser Asn Phe		
595	600	605
Glu Gln Tyr Thr Gly Asp Asp Cys Trp Val Asn Leu Ser Tyr Thr Val		
610	615	620
Val Ala Phe Thr Lys Gln Thr Met Gly Phe Leu Glu Glu Ala Leu Lys		
625	630	635
Leu Tyr Phe Pro Glu Leu His Met Val Leu Leu Glu Ser Leu Val Glu		
645	650	655
Ile Ile Leu Val Ala Val Gln His Val Asp Tyr Ser Leu Arg Cys Glu		
660	665	670
Gln Asp Pro Glu Lys Lys Ala Phe Ile Arg Gln Asn Ala Ser Phe Leu		
675	680	685
Tyr Glu Thr Val Leu Pro Val Val Glu Lys Arg Phe Glu Glu Gly Val		
690	695	700
Gly Lys Pro Ala Lys Gln Leu Gln Asp Leu Arg Asn Ala Ser Arg Leu		
705	710	715
Ile Arg Val Asn Pro Glu Ser Thr Thr Ser Val Val		
725	730	732

<210> 3520

<211> 393

<212> PRT

<213> Homo sapiens

<400> 3520
Phe Val Ala His Leu Ala Trp Pro Trp Arg Ala Asp Gly Asp Met Glu
1 5 10 15
Asp Gly Val Leu Asn Glu Gly Phe Leu Val Lys Arg Gly His Ile Val
20 25 30
His Asn Trp Lys Ala Arg Trp Phe Ile Leu Arg Gln Asn Thr Leu Val
35 40 45
Tyr Tyr Lys Leu Glu Gly Gly Arg Arg Val Thr Pro Pro Lys Gly Arg
50 55 60
Ile Leu Leu Asp Gly Cys Thr Ile Thr Cys Pro Cys Leu Glu Tyr Glu
65 70 75 80
Asn Arg Pro Leu Leu Ile Lys Leu Lys Thr Gln Thr Ser Thr Glu Tyr
85 90 95
Phe Leu Glu Ala Cys Ser Arg Glu Glu Arg Arg Asp Ala Trp Ala Phe
100 105 110
Glu Ile Thr Gly Ala Ile His Ala Gly Gln Ala Arg Gly Lys Val Gln
115 120 125
Gln Leu His Ser Leu Arg Asn Ser Phe Lys Leu Pro Pro His Ile Ser
130 135 140
Leu His Arg Ile Val Asp Lys Met His Asp Ser Asn Thr Gly Ile Arg
145 150 155 160
Ser Ser Pro Asn Met Glu Gln Gly Ser Thr Tyr Lys Lys Thr Phe Leu
165 170 175
Gly Ser Ser Leu Val Asp Trp Leu Ile Ser Asn Ser Phe Thr Ala Ser
180 185 190
Arg Leu Glu Ala Val Thr Leu Ala Ser Met Leu Met Glu Glu Asn Phe
195 200 205
Leu Arg Pro Val Gly Val Arg Ser Met Gly Ala Ile Arg Ser Gly Asp
210 215 220
Leu Ala Glu Gln Phe Leu Asp Asp Ser Thr Ala Leu Tyr Thr Phe Ala
225 230 235 240
Glu Ser Tyr Lys Lys Lys Ile Ser Pro Lys Glu Glu Ile Ser Leu Ser
245 250 255
Thr Val Glu Leu Ser Gly Thr Val Val Lys Gln Gly Tyr Leu Ala Lys
260 265 270
Gln Gly His Lys Arg Lys Asn Trp Lys Val Arg Arg Phe Val Leu Arg
275 280 285
Lys Asp Pro Ala Phe Leu His Tyr Tyr Asp Pro Ser Lys Glu Glu Asn
290 295 300
Arg Pro Val Gly Gly Phe Ser Leu Arg Gly Ser Leu Val Ser Ala Leu
305 310 315 320
Glu Asp Asn Gly Val Pro Thr Gly Val Lys Gly Asn Val Gln Gly Asn
325 330 335
Leu Phe Lys Val Ile Thr Lys Asp Asp Thr His Tyr Tyr Ile Gln Ala
340 345 350
Ser Ser Lys Ala Glu Arg Ala Glu Trp Ile Gly Ser Leu Ser Lys Ser
355 360 365
Leu Asn Met Asn Lys Asp Pro Glu Gly Thr Pro Asp Ser Leu Pro Ser
370 375 380
Leu Pro Arg
385 387

<210> 3521

<211> 1021

<212> PRT

<213> Homo sapiens

<400> 3521

His Ala Ser Val Ser Leu Ser Leu Gly Cys Pro Arg Pro Cys Ala Asp

1	5	10	15
Thr	Pro	Gly	Pro
20	25	30	
Pro	Pro	Val	Glu
35	40	45	
Pro	Gln	Arg	Leu
50	55	60	
Arg	Ser	Val	Glu
65	70	75	
Ala	Thr	Leu	Ser
85	90	95	
His	Gln	Ser	Gln
100	105	110	
Cys	Pro	Gln	Leu
115	120	125	
Pro	Gln	Glu	Gln
130	135	140	
Arg	Ser	Ala	Val
145	150	155	
Ile	Leu	Lys	Lys
165	170	175	
Ser	Pro	Gly	Ile
180	185	190	
Ala	Thr	Arg	Ser
195	200	205	
Pro	Ser	Asp	Pro
210	215	220	
Pro	Asn	Leu	Lys
225	230	235	
Lys	Asn	Pro	Leu
245	250	255	
Arg	Pro	Ala	Glu
260	265	270	
Pro	Ala	Ser	Gly
275	280	285	
Pro	Ile	Leu	Gly
290	295	300	
Glu	Thr	Ser	Val
305	310	315	
Ala	Ile	Thr	Leu
325	330	335	
Arg	Thr	His	Pro
340	345	350	
His	Thr	Pro	Leu
355	360	365	
Thr	Leu	Pro	Ser
370	375	380	
Ser	His	Ala	Pro
385	390	395	
His	Phe	Ala	Gln
405	410	415	
Leu	His	Trp	Pro
420	425	430	
Ala	Thr	Ala	Pro
435	440	445	
Leu	Lys	Thr	His
450	455	460	
Lys	Pro	Arg	Leu
465	470	475	
Gly	Gly	Gly	Pro
485	490	495	
Leu	Gly	His	Gly
500	505	510	
His	Pro	Gln	Val

515	520	525
Pro Arg Gly Ser Thr Gly Asp Thr Val Leu Leu Pro Leu Ala Gln Gly		
530	535	540
Gly His Arg Pro Leu Ser Arg Ala Gln Ser Ser Pro Ala Ala Pro Ala		
545	550	555
Ser Leu Ser Ala Pro Glu Pro Ala Ser Gln Ala Arg Val Leu Ser Ser		
565	570	575
Ser Glu Thr Pro Ala Arg Thr Leu Pro Phe Thr Thr Gly Leu Ile Tyr		
580	585	590
Asp Ser Val Met Leu Lys His Gln Cys Ser Cys Gly Asp Asn Ser Arg		
595	600	605
His Pro Glu His Ala Gly Arg Ile Gln Ser Ile Trp Ser Arg Leu Gln		
610	615	620
Glu Arg Gly Leu Arg Ser Gln Cys Glu Cys Leu Arg Gly Arg Lys Ala		
625	630	635
Ser Leu Glu Glu Leu Gln Ser Val His Ser Glu Arg His Val Leu Leu		
645	650	655
Tyr Gly Thr Asn Pro Leu Ser Arg Leu Lys Leu Asp Asn Gly Lys Leu		
660	665	670
Ala Gly Leu Leu Ala Gln Arg Met Phe Val Met Leu Pro Cys Gly Gly		
675	680	685
Val Gly Val Asp Thr Asp Thr Ile Trp Asn Glu Leu His Ser Ser Asn		
690	695	700
Ala Ala Arg Trp Ala Ala Gly Ser Val Thr Asp Leu Ala Phe Lys Val		
705	710	715
Ala Ser Arg Glu Leu Lys Asn Gly Phe Ala Val Val Arg Pro Pro Gly		
725	730	735
His His Ala Asp His Ser Thr Ala Met Gly Phe Cys Phe Phe Asn Ser		
740	745	750
Val Ala Ile Ala Cys Arg Gln Leu Gln Gln Gln Ser Lys Ala Ser Lys		
755	760	765
Ile Leu Ile Val Asp Trp Asp Val His His Gly Asn Gly Thr Gln Gln		
770	775	780
Thr Phe Tyr Gln Asp Pro Ser Val Leu Tyr Ile Ser Leu His Arg His		
785	790	795
Asp Asp Gly Asn Phe Phe Pro Gly Ser Gly Ala Val Asp Glu Val Gly		
805	810	815
Ala Gly Ser Gly Glu Gly Phe Asn Val Asn Val Ala Trp Ala Gly Gly		
820	825	830
Leu Asp Pro Pro Met Gly Asp Pro Glu Tyr Leu Ala Ala Phe Arg Ile		
835	840	845
Val Val Met Pro Ile Ala Arg Glu Phe Ser Pro Asp Leu Val Leu Val		
850	855	860
Ser Ala Gly Phe Asp Ala Ala Glu Gly His Pro Ala Pro Leu Gly Gly		
865	870	875
Tyr His Val Ser Ala Lys Cys Phe Gly Tyr Met Thr Gln Gln Leu Met		
885	890	895
Asn Leu Ala Gly Gly Ala Val Val Leu Ala Leu Glu Gly Gly His Asp		
900	905	910
Leu Thr Ala Ile Cys Asp Ala Ser Glu Ala Cys Val Ala Ala Leu Leu		
915	920	925
Gly Asn Arg Val Asp Pro Leu Ser Glu Glu Gly Trp Lys Gln Lys Pro		
930	935	940
Asn Leu Asn Ala Ile Arg Ser Leu Glu Ala Val Ile Arg Val His Ser		
945	950	955
Lys Tyr Trp Gly Cys Met Gln Arg Leu Ala Ser Cys Pro Asp Ser Trp		
965	970	975
Val Pro Arg Val Pro Gly Ala Asp Lys Glu Glu Val Glu Ala Val Thr		
980	985	990
Ala Leu Ala Ser Leu Ser Val Gly Ile Leu Ala Glu Asp Arg Pro Ser		
995	1000	1005
Glu Gln Leu Val Glu Glu Glu Glu Pro Met Asn Leu		
1010	1015	1020

<210> 3522
 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 3522
 Lys Met Ala Ala Leu Gly Glu Pro Val Arg Leu Glu Arg Asp Ile Cys
 1 5 10 15
 Arg Ala Ile Glu Leu Leu Glu Lys Leu Gln Arg Ser Gly Glu Val Pro
 20 25 30
 Pro Gln Lys Leu Gln Ala Leu Gln Arg Val Leu Gln Ser Glu Phe Cys
 35 40 45
 Asn Ala Val Arg Glu Val Tyr Glu His Val Tyr Glu Thr Val Asp Ile
 50 55 60
 Ser Ser Ser Pro Glu Val Arg Ala Asn Ala Thr Ala Lys Ala Thr Val
 65 70 75 80
 Ala Ala Phe Ala Ala Ser Glu Gly His Ser His Pro Arg Val Val Glu
 85 90 95
 Leu Pro Lys Thr Glu Glu Gly Leu Gly Phe Asn Ile Met Gly Gly Lys
 100 105 110
 Glu Gln Asn Ser Pro Ile Tyr Ile Ser Arg Ile Ile Pro Gly Gly Ile
 115 120 125
 Ala Asp Arg His Gly Gly Leu Lys Arg Gly Asp Gln Leu Leu Ser Val
 130 135 140
 Asn Gly Val Ser Val Glu Gly Glu His His Glu Lys Ala Val Glu Leu
 145 150 155 160
 Leu Lys Ala Ala Gln Gly Lys Val Lys Leu Val Val Arg Tyr Thr Pro
 165 170 175
 Lys Val Leu Glu Glu Met Glu Ser Arg Phe Glu Lys Met Arg Ser Ala
 180 185 190
 Lys Arg Arg Gln Gln Thr
 195 198

<210> 3523
 <211> 274
 <212> PRT
 <213> Homo sapiens

<400> 3523
 Ile Met Ala Glu Thr Ser Leu Leu Glu Ala Gly Ala Ser Ala Ala Ser
 1 5 10 15
 Thr Ala Ala Ala Leu Glu Asn Leu Gln Val Glu Ala Ser Cys Ser Val
 20 25 30
 Cys Leu Glu Tyr Leu Lys Glu Pro Val Ile Ile Glu Cys Gly His Asn
 35 40 45
 Phe Cys Lys Ala Cys Ile Thr Arg Trp Trp Glu Asp Leu Glu Arg Asp
 50 55 60
 Phe Pro Cys Pro Val Cys Arg Lys Thr Ser Arg Tyr Arg Ser Leu Arg
 65 70 75 80
 Pro Asn Arg Gln Leu Gly Ser Met Val Glu Ile Ala Lys Gln Leu Arg
 85 90 95
 Pro Ser Ser Gly Arg Ser Gly Met Arg Ala Ser Ala Pro Gln His His
 100 105 110
 Glu Ala Leu Ser Leu Phe Cys Tyr Glu Asp Gln Glu Ala Val Cys Leu
 115 120 125
 Ile Cys Ala Ile Ser His Thr His Arg Ala His Thr Val Val Pro Leu
 130 135 140
 Asp Asp Ala Thr Gln Glu Tyr Lys Glu Lys Leu Gln Lys Cys Leu Glu

145		150		155		160									
Ala	Leu	Asn	Gln	Lys	Leu	Gln	Glu	Ile	Thr	Arg	Cys	Lys	Ser	Ser	Glu
		165		170		175									
Glu	Lys	Lys	Pro	Gly	Glu	Leu	Lys	Arg	Leu	Val	Glu	Ser	Arg	Arg	Gln
		180		185		190									
Gln	Ile	Leu	Arg	Glu	Phe	Glu	Glu	Leu	His	Arg	Arg	Leu	Asp	Glu	Glu
		195		200		205									
Gln	Gln	Val	Leu	Leu	Ser	Arg	Leu	Glu	Glu	Glu	Glu	Gln	Asp	Ile	Leu
		210		215		220									
Gln	Arg	Leu	Arg	Glu	Asn	Ala	Ala	His	Leu	Gly	Asp	Lys	Arg	Arg	Asp
225		230		235		240									
Leu	Ala	His	Leu	Ala	Ala	Glu	Val	Glu	Gly	Lys	Cys	Leu	Gln	Ser	Gly
		245		250		255									
Phe	Glu	Met	Leu	Lys	Val	Arg	Pro	Leu	Pro	Leu	His	Ser	Pro	Ser	Gly
		260		265		270	272								

<210> 3524
 <211> 233
 <212> PRT
 <213> Homo sapiens

<400> 3524

Pro	Met	Val	Arg	His	Glu	Ala	Gly	Glu	Ala	Leu	Gly	Ala	Ile	Gly	Asp
1		5		10		15									
Pro	Glu	Val	Leu	Glu	Ile	Leu	Lys	Gln	Tyr	Ser	Ser	Asp	Pro	Val	Ile
		20		25		30									
Glu	Val	Ala	Glu	Thr	Cys	Gln	Leu	Ala	Val	Arg	Arg	Leu	Glu	Trp	Leu
		35		40		45									
Gln	Gln	His	Gly	Gly	Glu	Pro	Ala	Ala	Gly	Pro	Tyr	Leu	Ser	Val	Asp
		50		55		60									
Pro	Ala	Pro	Pro	Ala	Glu	Glu	Arg	Asp	Val	Gly	Arg	Leu	Arg	Glu	Ala
65		70		75		80									
Leu	Leu	Asp	Glu	Ser	Arg	Pro	Leu	Phe	Glu	Arg	Tyr	Arg	Ala	Met	Phe
		85		90		95									
Ala	Leu	Arg	Asn	Ala	Gly	Gly	Glu	Glu	Ala	Ala	Leu	Ala	Leu	Ala	Glu
		100		105		110									
Gly	Leu	His	Cys	Gly	Ser	Ala	Leu	Phe	Arg	His	Glu	Val	Gly	Tyr	Val
		115		120		125									
Leu	Gly	Gln	Leu	Gln	His	Glu	Ala	Ala	Val	Pro	Gln	Leu	Ala	Ala	Ala
		130		135		140									
Leu	Ala	Arg	Cys	Thr	Glu	Asn	Pro	Met	Val	Arg	His	Glu	Cys	Ala	Glu
145		150		155		160									
Ala	Leu	Gly	Ala	Ile	Ala	Arg	Pro	Ala	Cys	Leu	Ala	Ala	Leu	Gln	Ala
		165		170		175									
His	Ala	Asp	Asp	Pro	Glu	Arg	Val	Val	Arg	Glu	Ser	Cys	Lys	Val	Ala
		180		185		190									
Leu	Asp	Met	Tyr	Glu	His	Glu	Thr	Gly	Arg	Ala	Phe	Gln	Tyr	Ala	Asp
		195		200		205									
Gly	Leu	Glu	Gln	Leu	Arg	Gly	Ala	Pro	Ser	Leu	Gly	Pro	Asn	Pro	His
		210		215		220									
Pro	Glu	Leu	Pro	Glu	Asp	Ser									
225		230	231												

<210> 3525
 <211> 253
 <212> PRT
 <213> Homo sapiens

<400> 3525

Glu	Gly	Leu	Gln	Arg	Pro	Glu	Tyr	Leu	Val	Ala	Ser	Ala	Ala	Gly	Phe
1				5					10					15	
Gln	Gly	Leu	Ala	Trp	Gly	Gly	Glu	Gly	Arg	Gly	Arg	Ala	Gly	Cys	Ser
			20					25					30		
Ser	Ser	Gly	Phe	Arg	Asp	Ala	Glu	Pro	Leu	Leu	Leu	Ser	Cys	Pro	Gly
		35					40					45			
Arg	Asn	Glu	Pro	Leu	Lys	Lys	Glu	Arg	Leu	Lys	Trp	Lys	Ser	Asp	Tyr
		50				55					60				
Pro	Met	Thr	Asp	Gly	Gln	Leu	Arg	Ser	Lys	Arg	Asp	Glu	Phe	Trp	Asp
65					70					75					80
Thr	Ala	Pro	Ala	Phe	Glu	Gly	Arg	Lys	Glu	Ile	Trp	Asp	Ala	Leu	Lys
				85					90					95	
Ala	Ala	Ala	Tyr	Ala	Ala	Glu	Ala	Asn	Asp	His	Glu	Leu	Ala	Gln	Ala
			100					105					110		
Ile	Leu	Asp	Gly	Ala	Ser	Ile	Thr	Leu	Pro	His	Gly	Thr	Leu	Cys	Glu
		115					120					125			
Cys	Tyr	Asp	Glu	Leu	Gly	Asn	Arg	Tyr	Gln	Leu	Pro	Ile	Tyr	Cys	Leu
	130					135					140				
Ser	Pro	Pro	Val	Asn	Leu	Leu	Leu	Glu	His	Thr	Glu	Glu	Glu	Ser	Leu
145					150					155					160
Glu	Pro	Pro	Glu	Pro	Pro	Pro	Ser	Val	Arg	Arg	Glu	Phe	Pro	Leu	Lys
				165					170					175	
Val	Arg	Leu	Ser	Thr	Gly	Lys	Asp	Val	Arg	Leu	Ser	Ala	Ser	Leu	Pro
			180					185					190		
Asp	Thr	Val	Gly	Gln	Leu	Lys	Arg	Gln	Leu	His	Ala	Gln	Glu	Gly	Thr
		195					200					205			
Pro	Lys	Pro	Ser	Trp	Gln	Arg	Trp	Phe	Phe	Ser	Gly	Lys	Leu	Leu	Thr
	210					215					220				
Asp	Arg	Thr	Arg	Leu	Gln	Glu	Thr	Lys	Ile	Gln	Lys	Asp	Phe	Val	Ile
225					230					235					240
Gln	Val	Ile	Ile	Asn	Gln	Pro	Pro	Pro	Pro	Gln	Asp				
				245					250		252				

<210> 3526

<211> 1107

<212> PRT

<213> Homo sapiens

<400> 3526

Pro	Gly	Asn	Glu	Gly	Leu	Gly	Leu	Ala	Ala	Asp	His	Asn	Glu	Asp	Leu
1				5					10					15	
Gly	His	Leu	Ser	Ala	Asp	Ala	Pro	Trp	Pro	Ala	Val	Thr	Met	Ala	Pro
			20					25					30		
Arg	Lys	Arg	Ser	His	His	Gly	Leu	Gly	Phe	Leu	Cys	Cys	Phe	Gly	Gly
		35					40					45			
Ser	Asp	Ile	Pro	Glu	Ile	Asn	Leu	Arg	Asp	Asn	His	Pro	Leu	Gln	Phe
	50					55					60				
Met	Glu	Phe	Ser	Ser	Pro	Ile	Pro	Asn	Ala	Glu	Glu	Leu	Asn	Ile	Arg
65					70				75						80
Phe	Ala	Glu	Leu	Val	Asp	Glu	Leu	Asp	Leu	Thr	Asp	Lys	Asn	Arg	Glu
				85					90					95	
Ala	Met	Phe	Ala	Leu	Pro	Pro	Glu	Lys	Lys	Trp	Gln	Ile	Tyr	Cys	Ser
			100					105					110		
Lys	Lys	Lys	Glu	Gln	Glu	Asp	Pro	Asn	Lys	Leu	Ala	Thr	Ser	Trp	Pro
		115					120					125			
Asp	Tyr	Tyr	Ile	Asp	Arg	Ile	Asn	Ser	Met	Ala	Ala	Met	Gln	Ser	Leu
	130					135					140				
Tyr	Ala	Phe	Asp	Glu	Glu	Glu	Thr	Glu	Met	Arg	Asn	Gln	Val	Val	Glu

145		150		155		160									
Asp	Leu	Lys	Thr	Ala	Leu	Arg	Thr	Gln	Pro	Met	Arg	Phe	Val	Thr	Arg
				165					170						175
Phe	Ile	Glu	Leu	Glu	Gly	Leu	Thr	Cys	Leu	Leu	Asn	Phe	Leu	Arg	Ser
				180				185							190
Met	Asp	His	Ala	Thr	Cys	Glu	Ser	Arg	Ile	His	Thr	Ser	Leu	Ile	Gly
		195						200							205
Cys	Ile	Ile	Ala	Leu	Met	Asn	Asn	Ser	Gln	Gly	Arg	Ala	His	Val	Leu
	210					215					220				
Ala	Gln	Pro	Glu	Ala	Ile	Ser	Thr	Ile	Ala	Gln	Ser	Leu	Arg	Thr	Glu
225					230					235					240
Asn	Ser	Lys	Thr	Lys	Val	Ala	Val	Leu	Glu	Ile	Leu	Gly	Ala	Val	Cys
				245					250						255
Leu	Val	Pro	Gly	Gly	His	Lys	Lys	Val	Leu	Gln	Ala	Met	Leu	His	Tyr
			260					265							270
Gln	Val	Tyr	Ala	Ala	Glu	Arg	Thr	Arg	Phe	Gln	Thr	Leu	Leu	Asn	Glu
		275					280					285			
Leu	Asp	Arg	Ser	Leu	Gly	Arg	Tyr	Arg	Asp	Glu	Val	Asn	Leu	Lys	Thr
	290					295					300				
Ala	Ile	Met	Ser	Phe	Ile	Asn	Ala	Val	Leu	Asn	Ala	Gly	Ala	Gly	Glu
305					310					315					320
Asp	Asn	Leu	Glu	Phe	Arg	Leu	His	Leu	Arg	Tyr	Glu	Phe	Leu	Met	Leu
				325					330						335
Gly	Ile	Gln	Pro	Val	Ile	Asp	Lys	Leu	Arg	Gln	His	Glu	Asn	Ala	Ile
			340					345							350
Leu	Asp	Lys	His	Leu	Asp	Phe	Phe	Glu	Met	Val	Arg	Asn	Glu	Asp	Asp
	355						360					365			
Leu	Glu	Leu	Ala	Arg	Arg	Phe	Asp	Met	Val	His	Ile	Asp	Thr	Lys	Ser
	370					375					380				
Ala	Ser	Gln	Met	Phe	Glu	Leu	Ile	His	Lys	Lys	Leu	Lys	Tyr	Thr	Glu
385					390					395					400
Ala	Tyr	Pro	Cys	Leu	Leu	Ser	Val	Leu	His	His	Cys	Leu	Gln	Met	Pro
				405					410						415
Tyr	Lys	Arg	Asn	Gly	Gly	Tyr	Phe	Gln	Gln	Trp	Gln	Leu	Leu	Asp	Arg
			420					425							430
Ile	Leu	Gln	Gln	Ile	Val	Leu	Gln	Asp	Glu	Arg	Gly	Val	Asp	Pro	Asp
	435						440					445			
Leu	Ala	Pro	Leu	Glu	Asn	Phe	Asn	Val	Lys	Asn	Ile	Val	Asn	Met	Leu
	450					455					460				
Ile	Asn	Glu	Asn	Glu	Val	Lys	Gln	Trp	Arg	Asp	Gln	Ala	Glu	Lys	Phe
465					470					475					480
Arg	Lys	Glu	His	Met	Glu	Leu	Val	Ser	Arg	Leu	Glu	Arg	Lys	Glu	Arg
				485					490						495
Glu	Cys	Glu	Thr	Lys	Thr	Leu	Glu	Lys	Glu	Glu	Met	Met	Arg	Thr	Leu
			500					505					510		
Asn	Lys	Met	Lys	Asp	Lys	Leu	Ala	Arg	Glu	Ser	Gln	Glu	Leu	Arg	Gln
	515						520					525			
Ala	Arg	Gly	Gln	Val	Ala	Glu	Leu	Val	Ala	Gln	Leu	Ser	Glu	Leu	Ser
	530					535					540				
Thr	Gly	Pro	Val	Ser	Ser	Pro	Pro	Pro	Pro	Gly	Gly	Pro	Leu	Thr	Leu
545					550					555					560
Ser	Ser	Ser	Met	Thr	Thr	Asn	Asp	Leu	Pro	Pro	Pro	Pro	Pro	Pro	Leu
				565					570						575
Pro	Phe	Ala	Cys	Cys	Pro	Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Pro	Gly
			580					585				590			
Gly	Pro	Pro	Thr	Pro	Pro	Gly	Ala	Pro	Pro	Cys	Leu	Gly	Met	Gly	Leu
	595					600						605			
Pro	Leu	Pro	Gln	Asp	Pro	Tyr	Pro	Ser	Ser	Asp	Val	Pro	Leu	Arg	Lys
	610					615					620				
Lys	Arg	Val	Pro	Gln	Pro	Ser	His	Pro	Leu	Lys	Ser	Phe	Asn	Trp	Val
625					630					635					640
Lys	Leu	Asn	Glu	Glu	Arg	Val	Pro	Gly	Thr	Val	Trp	Asn	Glu	Ile	Asp
				645					650						655
Asp	Met	Gln	Val	Phe	Arg	Ile	Leu	Asp	Leu	Glu	Asp	Phe	Glu	Lys	Met

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<210> 3527
<211> 246
<212> PRT
<213> Homo sapiens
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<400> 3527

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Leu Leu Gly Thr Arg Met Leu Ala Gly Gln Leu Glu Ala Arg Asp Pro
 1          5          10          15
Lys Glu Gly Thr His Pro Glu Asp Pro Cys Pro Gly Ala Gly Ala Val
          20          25          30
Met Glu Lys Thr Ala Val Ala Ala Glu Val Leu Thr Glu Asp Cys Asn
          35          40          45
Thr Gly Glu Met Pro Pro Leu Gln Gln Gln Ile Ile Arg Leu His Gln
          50          55          60
Glu Leu Gly Arg Gln Lys Ser Leu Trp Ala Asp Val His Gly Lys Leu
65          70          75          80
Arg Ser His Ile Asp Ala Leu Arg Glu Gln Asn Met Glu Leu Arg Glu
          85          90          95
Lys Leu Arg Ala Leu Gln Leu Gln Arg Trp Lys Ala Arg Lys Lys Ser
          100          105          110
Ala Ala Ser Pro His Ala Gly Gln Glu Ser His Thr Leu Ala Leu Glu
          115          120          125
Pro Ala Phe Gly Lys Ile Ser Pro Leu Ser Ala Asp Glu Glu Thr Ile
130          135          140
Pro Lys Tyr Ala Gly His Lys Asn Gln Ser Gly His Ser Ser Trp Gly
145          150          155          160
Gln Arg Ser Ser Ser Asn Asn Ser Ala Pro Pro Lys Pro Met Ser Leu
          165          170          175
Lys Ile Glu Arg Ile Ser Ser Trp Lys Thr Pro Pro Gln Glu Asn Arg
          180          185          190
Asp Lys Asn Leu Ser Arg Arg Arg Gln Asp Arg Arg Ala Thr Pro Thr
          195          200          205
Gly Arg Pro Thr Pro Cys Ala Glu Arg Arg Gly Val Ser Glu Asp Gly
210          215          220
Lys Val Ala Ser Asp Thr Cys Val Thr Leu His Trp Pro Leu Gly Lys
225          230          235          240
Phe Arg Phe Arg
          244

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<210> 3528

<211> 432

<212> PRT

<213> Homo sapiens

<400> 3528

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Arg Ile Ser Lys Ile Gln Val Tyr Tyr Ser Thr Gly Tyr Ser Ser Arg
 1          5          10          15
Lys Met Asn Pro Thr Leu Gly Leu Ala Ile Phe Leu Ala Val Leu Leu
          20          25          30
Thr Val Lys Gly Leu Leu Lys Pro Ser Phe Ser Pro Arg Asn Tyr Lys
          35          40          45
Ala Leu Ser Glu Val Gln Gly Trp Lys Gln Arg Met Ala Ala Lys Glu
          50          55          60
Leu Ala Arg Gln Asn Met Asp Leu Gly Phe Lys Leu Leu Lys Lys Leu
65          70          75          80
Ala Phe Tyr Asn Pro Gly Arg Asn Ile Phe Leu Ser Pro Leu Ser Ile
          85          90          95
Ser Thr Ala Phe Ser Met Leu Cys Leu Gly Ala Gln Asp Ser Thr Leu
          100          105          110
Asp Glu Ile Lys Gln Gly Phe Asn Phe Arg Lys Met Pro Glu Lys Asp
          115          120          125
Leu His Glu Gly Phe His Tyr Ile Ile His Glu Leu Thr Gln Lys Thr
130          135          140
Gln Asp Leu Lys Leu Ser Ile Gly Asn Thr Leu Phe Ile Asp Gln Arg

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145		150		155		160									
Leu	Gln	Pro	Gln	Arg	Lys	Phe	Leu	Glu	Asp	Ala	Lys	Asn	Phe	Tyr	Ser
				165					170					175	
Ala	Glu	Thr	Ile	Leu	Thr	Asn	Phe	Gln	Asn	Leu	Glu	Met	Ala	Gln	Lys
			180					185					190		
Gln	Ile	Asn	Asp	Phe	Ile	Glu	Ser	Lys	Thr	His	Gly	Lys	Ile	Asn	Asn
		195					200					205			
Leu	Ile	Glu	Asn	Ile	Asp	Pro	Gly	Thr	Val	Met	Leu	Leu	Ala	Asn	Tyr
	210					215					220				
Ile	Phe	Phe	Arg	Ala	Arg	Trp	Lys	His	Glu	Phe	Asp	Pro	Asn	Val	Thr
225				230					235					240	
Lys	Glu	Glu	Asp	Phe	Phe	Leu	Glu	Lys	Asn	Ser	Ser	Val	Lys	Val	Pro
			245					250					255		
Met	Met	Phe	Arg	Ser	Gly	Ile	Tyr	Gln	Val	Gly	Tyr	Asp	Asp	Lys	Leu
		260					265					270			
Ser	Cys	Thr	Ile	Leu	Glu	Ile	Pro	Tyr	Gln	Lys	Asn	Ile	Thr	Ala	Ile
	275						280				285				
Phe	Ile	Leu	Pro	Asp	Glu	Gly	Lys	Leu	Lys	His	Leu	Glu	Lys	Gly	Leu
	290					295					300				
Gln	Val	Asp	Thr	Phe	Ser	Arg	Trp	Lys	Thr	Leu	Leu	Ser	Arg	Arg	Val
305				310					315					320	
Val	Asp	Val	Ser	Val	Pro	Arg	Leu	His	Met	Thr	Gly	Thr	Phe	Asp	Leu
			325					330					335		
Lys	Lys	Thr	Leu	Ser	Tyr	Ile	Gly	Val	Ser	Lys	Ile	Phe	Glu	Glu	His
		340					345					350			
Gly	Asp	Leu	Thr	Lys	Ile	Ala	Pro	His	Arg	Ser	Leu	Lys	Val	Gly	Glu
	355					360					365				
Ala	Val	Asn	Lys	Ala	Glu	Leu	Lys	Met	Asp	Glu	Arg	Gly	Thr	Glu	Gly
	370					375				380					
Ala	Ala	Gly	Thr	Gly	Ala	Gln	Thr	Leu	Pro	Met	Glu	Thr	Pro	Leu	Val
385				390					395					400	
Val	Lys	Ile	Asp	Lys	Pro	Tyr	Leu	Leu	Leu	Ile	Tyr	Ser	Glu	Lys	Ile
			405					410					415		
Pro	Ser	Val	Leu	Phe	Leu	Gly	Lys	Ile	Val	Asn	Pro	Ile	Gly	Lys	
		420					425					430	431		

<210> 3529

<211> 1897

<212> PRT

<213> Homo sapiens

<400> 3529

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Glu	Asn	Pro	Pro	Ser	Ser	Arg	Ser	Ser	Glu	Ser	Gly	Phe	Thr	Glu	Phe
		20					25					30			
Ile	Gln	Tyr	Gln	Ala	Asp	Arg	Thr	Asp	Asp	Ile	Asp	Arg	Glu	Leu	Ser
	35					40					45				
Glu	Gly	Gln	Gly	Ala	Ala	Ala	Ile	Pro	Ile	Gly	Ser	Thr	Ser	Ser	Glu
	50					55				60					
Thr	Glu	Thr	Ala	Ser	Thr	Val	Gly	Ser	Glu	Glu	Thr	Ile	Ile	Gln	Thr
65					70				75					80	
Pro	Ser	Val	Val	Thr	Gln	Gly	Thr	Ala	Thr	Arg	Ser	Arg	Lys	Thr	Ala
			85				90						95		
Gln	Lys	Thr	Ala	Met	Gln	Cys	Cys	Leu	Glu	Tyr	Val	Gln	Gln	Phe	Leu
	100						105					110			
Thr	Arg	Leu	Ile	Asn	Leu	Tyr	Ile	Ile	Gln	Asn	Asn	Ser	Phe	Ser	Gln
	115					120					125				
Ser	Leu	Ala	Thr	Glu	His	Gln	Gly	Asp	Leu	Gly	Arg	Glu	Gln	Gly	Glu
	130					135				140					
Thr	Ser	Lys	Trp	Asp	Arg	Asn	Ser	Gln	Gly	Asp	Val	Lys	Glu	Lys	Asn

145		150		155		160
Ile Ser Lys Gln Lys Thr Ser Lys Glu Tyr Leu Ser Ala Phe Leu Ala						
	165		170		175	
Ala Cys Gln Leu Phe Leu Glu Cys Ser Ser Phe Pro Val Tyr Ile Ala						
	180		185		190	
Glu Gly Asn His Thr Ser Glu Leu Arg Ser Glu Lys Leu Glu Thr Asp						
	195		200		205	
Cys Glu His Val Gln Pro Pro Gln Trp Leu Gln Thr Leu Met Asn Ala						
	210		215		220	
Cys Ser Gln Ala Ser Asp Phe Ser Val Gln Ser Val Ala Ile Ser Leu						
225		230		235		240
Val Met Asp Leu Val Gly Leu Thr Gln Ser Val Ala Met Val Thr Gly						
	245		250		255	
Glu Asn Ile Asn Ser Val Glu Pro Ala Gln Pro Leu Ser Pro Asn Gln						
	260		265		270	
Gly Arg Val Ala Val Val Ile Arg Pro Pro Leu Thr Gln Gly Asn Leu						
	275		280		285	
Arg Tyr Ile Ala Glu Lys Thr Glu Phe Phe Lys His Val Ala Leu Thr						
	290		295		300	
Leu Trp Asp Gln Leu Gly Asp Gly Thr Pro Gln His His Gln Lys Ser						
305		310		315		320
Val Glu Leu Phe Tyr Gln Leu His Asn Leu Val Pro Ser Ser Ser Ile						
	325		330		335	
Cys Glu Asp Val Ile Ser Gln Gln Leu Thr His Lys Asp Lys Lys Ile						
	340		345		350	
Arg Met Glu Ala His Ala Lys Phe Ala Val Leu Trp His Leu Thr Arg						
	355		360		365	
Asp Leu His Ile Asn Lys Ser Ser Ser Phe Val Arg Ser Phe Asp Arg						
	370		375		380	
Ser Leu Phe Ile Met Leu Asp Ser Leu Asn Ser Leu Asp Gly Ser Thr						
385		390		395		400
Ser Ser Val Gly Gln Ala Trp Leu Asn Gln Val Leu Gln Arg His Asp						
	405		410		415	
Ile Ala Arg Val Leu Glu Pro Leu Leu Leu Leu Leu His Pro Lys						
	420		425		430	
Thr Gln Arg Val Ser Val Gln Arg Val Gln Ala Glu Arg Tyr Trp Asn						
	435		440		445	
Lys Ser Pro Cys Tyr Pro Gly Glu Glu Ser Asp Lys His Phe Met Gln						
	450		455		460	
Asn Phe Ala Cys Ser Asn Val Ser Gln Val Gln Leu Ile Thr Ser Lys						
465		470		475		480
Gly Asn Gly Glu Lys Pro Leu Thr Met Asp Glu Ile Glu Asn Phe Ser						
	485		490		495	
Leu Thr Val Asn Pro Leu Ser Asp Arg Leu Ser Leu Leu Ser Thr Ser						
	500		505		510	
Ser Glu Thr Ile Pro Met Val Val Ser Asp Phe Asp Leu Pro Asp Gln						
	515		520		525	
Gln Ile Glu Ile Leu Gln Ser Ser Asp Ser Gly Cys Ser Gln Ser Ser						
	530		535		540	
Ala Gly Asp Asn Leu Ser Tyr Glu Val Asp Pro Glu Thr Val Asn Ala						
545		550		555		560
Gln Glu Asp Ser Gln Met Pro Lys Glu Ser Ser Pro Asp Asp Asp Val						
	565		570		575	
Gln Gln Val Val Phe Asp Leu Ile Cys Lys Val Val Ser Gly Leu Glu						
	580		585		590	
Val Glu Ser Ala Ser Val Thr Ser Gln Leu Glu Ile Glu Ala Met Pro						
	595		600		605	
Pro Lys Cys Ser Asp Ile Asp Pro Asp Glu Glu Thr Ile Lys Ile Glu						
	610		615		620	
Asp Asp Ser Ile Gln Gln Ser Gln Asn Ala Leu Leu Ser Asn Glu Ser						
625		630		635		640
Ser Gln Phe Leu Ser Val Ser Ala Glu Gly Gly His Glu Cys Val Ala						
	645		650		655	
Asn Gly Ile Ser Arg Asn Ser Ser Ser Pro Cys Ile Ser Gly Thr Thr						

5276

1170 1175 1180
Arg Ser Gly Ile Leu Ser Ile Leu His Met Ile Met Ser Ser Val Thr
1185 1190 1195 1200
Leu Leu Trp Ser Ile Leu His Gln Ala Asp Ser Ser Glu Lys Met Thr
1205 1210 1215
Ile Ala Ala Ser Ala Ser Leu Thr Thr Ile Asn Leu Gly Ala Thr Lys
1220 1225 1230
Asn Leu Arg Gln Gln Ile Leu Glu Leu Leu Gly Pro Ile Ser Met Asn
1235 1240 1245
His Gly Val His Phe Met Ala Ala Ile Ala Phe Val Trp Asn Glu Arg
1250 1255 1260
Arg Gln Asn Lys Thr Thr Thr Arg Thr Lys Val Ile Pro Ala Ala Ser
1265 1270 1275 1280
Glu Glu Gln Leu Leu Leu Val Glu Leu Val Arg Ser Ile Ser Val Met
1285 1290 1295
Arg Ala Glu Thr Val Ile Gln Thr Val Lys Glu Val Leu Lys Gln Pro
1300 1305 1310
Pro Ala Ile Ala Lys Asp Lys Lys His Leu Ser Leu Glu Val Cys Met
1315 1320 1325
Leu Gln Phe Phe Tyr Ala Tyr Ile Gln Arg Ile Pro Val Pro Asn Leu
1330 1335 1340
Val Asp Ser Trp Ala Ser Leu Leu Ile Leu Leu Lys Asp Ser Ile Gln
1345 1350 1355 1360
Leu Ser Leu Pro Ala Pro Gly Gln Phe Leu Ile Leu Gly Val Leu Asn
1365 1370 1375
Glu Phe Ile Met Lys Asn Pro Ser Leu Glu Asn Lys Lys Asp Gln Arg
1380 1385 1390
Asp Leu Gln Asp Val Thr His Lys Ile Val Asp Ala Ile Gly Ala Ile
1395 1400 1405
Ala Gly Ser Ser Leu Glu Gln Thr Thr Trp Leu Arg Arg Asn Leu Glu
1410 1415 1420
Val Lys Pro Ser Pro Lys Ile Met Val Asp Gly Thr Asn Leu Glu Ser
1425 1430 1435 1440
Asp Val Glu Asp Met Leu Ser Pro Ala Met Glu Thr Ala Asn Ile Thr
1445 1450 1455
Pro Ser Val Tyr Ser Val His Ala Leu Thr Leu Leu Ser Glu Val Leu
1460 1465 1470
Ala His Leu Leu Asp Met Val Phe Tyr Ser Asp Glu Lys Glu Arg Val
1475 1480 1485
Ile Pro Leu Leu Val Asn Ile Met His Tyr Val Val Pro Tyr Leu Arg
1490 1495 1500
Asn His Ser Ala His Asn Ala Pro Ser Tyr Arg Ala Cys Val Gln Leu
1505 1510 1515 1520
Leu Ser Ser Leu Ser Gly Tyr Gln Tyr Thr Arg Arg Ala Trp Lys Lys
1525 1530 1535
Glu Ala Phe Asp Leu Phe Met Asp Pro Ser Phe Phe Gln Met Asp Ala
1540 1545 1550
Ser Cys Val Asn His Trp Arg Ala Ile Met Asp Asn Leu Met Thr His
1555 1560 1565
Asp Lys Thr Thr Phe Arg Asp Leu Met Thr Arg Val Ala Val Ala Gln
1570 1575 1580
Ser Ser Ser Leu Asn Leu Phe Ala Asn Arg Asp Val Glu Leu Glu Gln
1585 1590 1595 1600
Arg Ala Met Leu Leu Lys Arg Leu Ala Phe Ala Ile Phe Ser Ser Glu
1605 1610 1615
Ile Asp Gln Tyr Gln Lys Tyr Leu Pro Asp Ile Gln Glu Arg Leu Val
1620 1625 1630
Glu Ser Leu Arg Leu Pro Gln Val Pro Thr Leu His Ser Gln Val Phe
1635 1640 1645
Leu Phe Phe Arg Val Leu Leu Leu Arg Met Ser Pro Gln His Leu Thr
1650 1655 1660
Ser Leu Trp Pro Thr Met Ile Thr Glu Leu Val Gln Val Phe Leu Leu
1665 1670 1675 1680
Met Glu Gln Glu Leu Thr Ala Asp Glu Asp Ile Ser Arg Thr Ser Gly

1685 1690 1695
 Pro Ser Val Ala Gly Leu Glu Thr Thr Tyr Thr Gly Gly Asn Gly Phe
 1700 1705 1710
 Ser Thr Ser Tyr Asn Ser Gln Arg Trp Leu Asn Leu Tyr Leu Ser Ala
 1715 1720 1725
 Cys Lys Phe Leu Asp Leu Ala Leu Ala Leu Pro Ser Glu Asn Leu Pro
 1730 1735 1740
 Gln Phe Gln Met Tyr Arg Trp Ala Phe Ile Pro Glu Ala Ser Asp Asp
 1745 1750 1755 1760
 Ser Gly Leu Glu Val Arg Arg Gln Gly Ile His Gln Arg Glu Phe Lys
 1765 1770 1775
 Pro Tyr Val Val Arg Leu Ala Lys Leu Leu Arg Lys Arg Ala Lys Lys
 1780 1785 1790
 Asn Pro Glu Glu Asp Asn Ser Gly Arg Thr Leu Gly Trp Glu Pro Gly
 1795 1800 1805
 His Leu Leu Leu Thr Ile Cys Thr Val Arg Ser Met Glu Gln Leu Leu
 1810 1815 1820
 Pro Phe Phe Asn Val Leu Ser Gln Val Phe Asn Ser Lys Val Thr Ser
 1825 1830 1835 1840
 Arg Cys Gly Gly His Ser Gly Ser Pro Ile Leu Tyr Ser Asn Ala Phe
 1845 1850 1855
 Pro Asn Lys Asp Met Lys Leu Glu Asn His Lys Pro Cys Ser Ser Lys
 1860 1865 1870
 Ala Arg Gln Lys Ile Glu Glu Met Val Glu Lys Asp Phe Leu Glu Gly
 1875 1880 1885
 Met Ile Lys Thr
 1890 1892

<210> 3530
 <211> 1897
 <212> PRT
 <213> Homo sapiens

<400> 3530
 Val Ser Ser Val Ser His Glu Asn Pro Thr Glu Val Phe Glu Asp Gly
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 Glu Asn Pro Pro Ser Ser Arg Ser Ser Glu Ser Gly Phe Thr Glu Phe
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 Ile Gln Tyr Gln Ala Asp Arg Thr Asp Asp Ile Asp Arg Glu Leu Ser
 35 40 45
 Glu Gly Gln Gly Ala Ala Ala Ile Pro Ile Gly Ser Thr Ser Ser Glu
 50 55 60
 Thr Glu Thr Ala Ser Thr Val Gly Ser Glu Glu Thr Ile Ile Gln Thr
 65 70 75 80
 Pro Ser Val Val Thr Gln Gly Thr Ala Thr Arg Ser Arg Lys Thr Ala
 85 90 95
 Gln Lys Thr Ala Met Gln Cys Cys Leu Glu Tyr Val Gln Gln Phe Leu
 100 105 110
 Thr Arg Leu Ile Asn Leu Tyr Ile Ile Gln Asn Asn Ser Phe Ser Gln
 115 120 125
 Ser Leu Ala Thr Glu His Gln Gly Asp Leu Gly Arg Glu Gln Gly Glu
 130 135 140
 Thr Ser Lys Trp Asp Arg Asn Ser Gln Gly Asp Val Lys Glu Lys Asn
 145 150 155 160
 Ile Ser Lys Gln Lys Thr Ser Lys Glu Tyr Leu Ser Ala Phe Leu Ala
 165 170 175
 Ala Cys Gln Leu Phe Leu Glu Cys Ser Ser Phe Pro Val Tyr Ile Ala
 180 185 190
 Glu Gly Asn His Thr Ser Glu Leu Arg Ser Glu Lys Leu Glu Thr Asp
 195 200 205
 Cys Glu His Val Gln Pro Pro Gln Trp Leu Gln Thr Leu Met Asn Ala

210	215	220
Cys Ser Gln Ala Ser Asp Phe Ser Val Gln Ser Val Ala Ile Ser Leu		
225	230	235
Val Met Asp Leu Val Gly Leu Thr Gln Ser Val Ala Met Val Thr Gly		240
	245	250
Glu Asn Ile Asn Ser Val Glu Pro Ala Gln Pro Leu Ser Pro Asn Gln		255
	260	265
Gly Arg Val Ala Val Val Ile Arg Pro Pro Leu Thr Gln Gly Asn Leu		270
	275	280
Arg Tyr Ile Ala Glu Lys Thr Glu Phe Phe Lys His Val Ala Leu Thr		285
	290	295
Leu Trp Asp Gln Leu Gly Asp Gly Thr Pro Gln His His Gln Lys Ser		300
305	310	315
Val Glu Leu Phe Tyr Gln Leu His Asn Leu Val Pro Ser Ser Ser Ile		320
	325	330
Cys Glu Asp Val Ile Ser Gln Gln Leu Thr His Lys Asp Lys Lys Ile		335
	340	345
Arg Met Glu Ala His Ala Lys Phe Ala Val Leu Trp His Leu Thr Arg		350
	355	360
Asp Leu His Ile Asn Lys Ser Ser Ser Phe Val Arg Ser Phe Asp Arg		365
	370	375
Ser Leu Phe Ile Met Leu Asp Ser Leu Asn Ser Leu Asp Gly Ser Thr		380
385	390	395
Ser Ser Val Gly Gln Ala Trp Leu Asn Gln Val Leu Gln Arg His Asp		400
	405	410
Ile Ala Arg Val Leu Glu Pro Leu Leu Leu Leu Leu Leu His Pro Lys		415
	420	425
Thr Gln Arg Val Ser Val Gln Arg Val Gln Ala Glu Arg Tyr Trp Asn		430
	435	440
Lys Ser Pro Cys Tyr Pro Gly Glu Glu Ser Asp Lys His Phe Met Gln		445
	450	455
Asn Phe Ala Cys Ser Asn Val Ser Gln Val Gln Leu Ile Thr Ser Lys		460
465	470	475
Gly Asn Gly Glu Lys Pro Leu Thr Met Asp Glu Ile Glu Asn Phe Ser		480
	485	490
Leu Thr Val Asn Pro Leu Ser Asp Arg Leu Ser Leu Leu Ser Thr Ser		495
	500	505
Ser Glu Thr Ile Pro Met Val Val Ser Asp Phe Asp Leu Pro Asp Gln		510
	515	520
Gln Ile Glu Ile Leu Gln Ser Ser Asp Ser Gly Cys Ser Gln Ser Ser		525
	530	535
Ala Gly Asp Asn Leu Ser Tyr Glu Val Asp Pro Glu Thr Val Asn Ala		540
545	550	555
Gln Glu Asp Ser Gln Met Pro Lys Glu Ser Ser Pro Asp Asp Asp Val		560
	565	570
Gln Gln Val Val Phe Asp Leu Ile Cys Lys Val Val Ser Gly Leu Glu		575
	580	585
Val Glu Ser Ala Ser Val Thr Ser Gln Leu Glu Ile Glu Ala Met Pro		590
	595	600
Pro Lys Cys Ser Asp Ile Asp Pro Asp Glu Glu Thr Ile Lys Ile Glu		605
	610	615
Asp Asp Ser Ile Gln Gln Ser Gln Asn Ala Leu Leu Ser Asn Glu Ser		620
625	630	635
Ser Gln Phe Leu Ser Val Ser Ala Glu Gly Gly His Glu Cys Val Ala		640
	645	650
Asn Gly Ile Ser Arg Asn Ser Ser Ser Pro Cys Ile Ser Gly Thr Thr		655
	660	665
His Thr Leu His Asp Ser Ser Val Ala Ser Ile Glu Thr Lys Ser Arg		670
	675	680
Gln Arg Ser His Ser Ser Ile Gln Phe Ser Phe Lys Glu Lys Leu Ser		685
	690	695
Glu Lys Val Ser Glu Lys Glu Thr Ile Val Lys Glu Ser Gly Lys Gln		700
705	710	715
Pro Gly Ala Lys Pro Lys Val Lys Leu Ala Arg Lys Lys Asp Asp Asp		720

				725					730					735		
Lys	Lys	Lys	Ser	Ser	Asn	Glu	Lys	Leu	Lys	Gln	Thr	Ser	Val	Phe	Phe	
			740					745					750			
Ser	Asp	Gly	Leu	Asp	Leu	Glu	Asn	Trp	Tyr	Ser	Cys	Gly	Glu	Gly	Asp	
		755					760					765				
Ile	Ser	Glu	Ile	Glu	Ser	Asp	Met	Gly	Ser	Pro	Gly	Ser	Arg	Lys	Ser	
		770				775					780					
Pro	Asn	Phe	Asn	Ile	His	Pro	Leu	Tyr	Gln	His	Val	Leu	Leu	Tyr	Leu	
785					790					795					800	
Gln	Leu	Tyr	Asp	Ser	Ser	Arg	Thr	Leu	Tyr	Ala	Phe	Ser	Ala	Ile	Lys	
			805						810					815		
Ala	Ile	Leu	Lys	Thr	Asn	Pro	Ile	Ala	Phe	Val	Asn	Ala	Ile	Ser	Thr	
			820					825					830			
Thr	Ser	Val	Asn	Asn	Ala	Tyr	Thr	Pro	Gln	Leu	Ser	Leu	Leu	Gln	Asn	
		835					840					845				
Leu	Leu	Ala	Arg	His	Arg	Ile	Ser	Val	Met	Gly	Lys	Asp	Phe	Tyr	Ser	
		850				855					860					
His	Ile	Pro	Val	Asp	Ser	Asn	His	Asn	Phe	Arg	Ser	Ser	Met	Tyr	Ile	
865					870					875					880	
Glu	Ile	Leu	Ile	Ser	Leu	Cys	Leu	Tyr	Tyr	Met	Arg	Ser	His	Tyr	Pro	
			885						890					895		
Thr	His	Val	Lys	Val	Thr	Ala	Gln	Asp	Leu	Ile	Gly	Asn	Arg	Asn	Met	
			900					905					910			
Gln	Met	Met	Ser	Ile	Glu	Ile	Leu	Thr	Leu	Leu	Phe	Thr	Glu	Leu	Ala	
		915					920					925				
Lys	Val	Ile	Glu	Ser	Ser	Ala	Lys	Gly	Phe	Pro	Ser	Phe	Ile	Ser	Asp	
		930				935					940					
Met	Leu	Ser	Lys	Cys	Lys	Val	Gln	Lys	Val	Ile	Leu	His	Cys	Leu	Leu	
945					950					955					960	
Ser	Ser	Ile	Phe	Ser	Ala	Gln	Lys	Trp	His	Ser	Glu	Lys	Met	Ala	Gly	
			965						970					975		
Lys	Asn	Leu	Val	Ala	Val	Glu	Glu	Gly	Phe	Ser	Glu	Asp	Ser	Leu	Ile	
			980					985					990			
Asn	Phe	Ser	Glu	Asp	Glu	Phe	Asp	Asn	Gly	Ser	Thr	Leu	Gln	Ser	Gln	
		995					1000					1005				
Leu	Leu	Lys	Val	Leu	Gln	Arg	Leu	Ile	Val	Leu	Glu	His	Arg	Val	Met	
						1015					1020					
Thr	Ile	Pro	Glu	Glu	Asn	Glu	Thr	Gly	Phe	Asp	Phe	Val	Val	Ser	Asp	
1025					1030					1035					1040	
Leu	Glu	His	Ile	Ser	Pro	His	Gln	Pro	Met	Thr	Ser	Leu	Gln	Tyr	Leu	
			1045						1050					1055		
His	Ala	Gln	Ser	Ile	Thr	Cys	Gln	Gly	Met	Phe	Leu	Cys	Ala	Val	Ile	
			1060					1065					1070			
Arg	Ala	Leu	His	Gln	His	Cys	Ala	Cys	Lys	Met	His	Pro	Gln	Trp	Ile	
		1075					1080					1085				
Gly	Leu	Ile	Thr	Ser	Thr	Leu	Pro	Tyr	Met	Gly	Lys	Val	Leu	Gln	Arg	
		1090				1095					1100					
Val	Val	Val	Ser	Val	Thr	Leu	Gln	Leu	Cys	Arg	Asn	Leu	Asp	Asn	Leu	
1105					1110					1115				1120		
Ile	Gln	Gln	Tyr	Lys	Tyr	Glu	Thr	Gly	Leu	Ser	Asp	Ser	Arg	Pro	Leu	
			1125						1130					1135		
Trp	Met	Ala	Ser	Ile	Ile	Pro	Pro	Asp	Met	Ile	Leu	Thr	Leu	Leu	Glu	
		1140						1145					1150			
Gly	Ile	Thr	Ala	Ile	Ile	His	Tyr	Cys	Leu	Leu	Asp	Pro	Thr	Thr	Gln	
		1155				1160					1165					
Tyr	His	Gln	Leu	Leu	Val	Ser	Val	Asp	Gln	Lys	His	Leu	Phe	Glu	Ala	
		1170				1175					1180					
Arg	Ser	Gly	Ile	Leu	Ser	Ile	Leu	His	Met	Ile	Met	Ser	Ser	Val	Thr	
1185					1190					1195					1200	
Leu	Leu	Trp	Ser	Ile	Leu	His	Gln	Ala	Asp	Ser	Ser	Glu	Lys	Met	Thr	
			1205					1210						1215		
Ile	Ala	Ala	Ser	Ala	Ser	Leu	Thr	Thr	Ile	Asn	Leu	Gly	Ala	Thr	Lys	
		1220						1225					1230			
Asn	Leu	Arg	Gln	Gln	Ile	Leu	Glu	Leu	Leu	Gly	Pro	Ile	Ser	Met	Asn	

1235	1240	1245
His Gly Val His Phe Met Ala Ala Ile Ala Phe Val Trp Asn Glu Arg		
1250	1255	1260
Arg Gln Asn Lys Thr Thr Thr Arg Thr Lys Val Ile Pro Ala Ala Ser		
1265	1270	1275
Glu Glu Gln Leu Leu Leu Val Glu Leu Val Arg Ser Ile Ser Val Met		1280
1285	1290	1295
Arg Ala Glu Thr Val Ile Gln Thr Val Lys Glu Val Leu Lys Gln Pro		
1300	1305	1310
Pro Ala Ile Ala Lys Asp Lys Lys His Leu Ser Leu Glu Val Cys Met		
1315	1320	1325
Leu Gln Phe Phe Tyr Ala Tyr Ile Gln Arg Ile Pro Val Pro Asn Leu		
1330	1335	1340
Val Asp Ser Trp Ala Ser Leu Leu Ile Leu Leu Lys Asp Ser Ile Gln		
1345	1350	1355
Leu Ser Leu Pro Ala Pro Gly Gln Phe Leu Ile Leu Gly Val Leu Asn		1360
1365	1370	1375
Glu Phe Ile Met Lys Asn Pro Ser Leu Glu Asn Lys Lys Asp Gln Arg		
1380	1385	1390
Asp Leu Gln Asp Val Thr His Lys Ile Val Asp Ala Ile Gly Ala Ile		
1395	1400	1405
Ala Gly Ser Ser Leu Glu Gln Thr Thr Trp Leu Arg Arg Asn Leu Glu		
1410	1415	1420
Val Lys Pro Ser Pro Lys Ile Met Val Asp Gly Thr Asn Leu Glu Ser		
1425	1430	1435
Asp Val Glu Asp Met Leu Ser Pro Ala Met Glu Thr Ala Asn Ile Thr		
1445	1450	1455
Pro Ser Val Tyr Ser Val His Ala Leu Thr Leu Leu Ser Glu Val Leu		
1460	1465	1470
Ala His Leu Leu Asp Met Val Phe Tyr Ser Asp Glu Lys Glu Arg Val		
1475	1480	1485
Ile Pro Leu Leu Val Asn Ile Met His Tyr Val Val Pro Tyr Leu Arg		
1490	1495	1500
Asn His Ser Ala His Asn Ala Pro Ser Tyr Arg Ala Cys Val Gln Leu		
1505	1510	1515
Leu Ser Ser Leu Ser Gly Tyr Gln Tyr Thr Arg Arg Ala Trp Lys Lys		1520
1525	1530	1535
Glu Ala Phe Asp Leu Phe Met Asp Pro Ser Phe Phe Gln Met Asp Ala		
1540	1545	1550
Ser Cys Val Asn His Trp Arg Ala Ile Met Asp Asn Leu Met Thr His		
1555	1560	1565
Asp Lys Thr Thr Phe Arg Asp Leu Met Thr Arg Val Ala Val Ala Gln		
1570	1575	1580
Ser Ser Ser Leu Asn Leu Phe Ala Asn Arg Asp Val Glu Leu Glu Gln		
1585	1590	1595
Arg Ala Met Leu Leu Lys Arg Leu Ala Phe Ala Ile Phe Ser Ser Glu		1600
1605	1610	1615
Ile Asp Gln Tyr Gln Lys Tyr Leu Pro Asp Ile Gln Glu Arg Leu Val		
1620	1625	1630
Glu Ser Leu Arg Leu Pro Gln Val Pro Thr Leu His Ser Gln Val Phe		
1635	1640	1645
Leu Phe Phe Arg Val Leu Leu Leu Arg Met Ser Pro Gln His Leu Thr		
1650	1655	1660
Ser Leu Trp Pro Thr Met Ile Thr Glu Leu Val Gln Val Phe Leu Leu		
1665	1670	1675
Met Glu Gln Glu Leu Thr Ala Asp Glu Asp Ile Ser Arg Thr Ser Gly		1680
1685	1690	1695
Pro Ser Val Ala Gly Leu Glu Thr Thr Tyr Thr Gly Gly Asn Gly Phe		
1700	1705	1710
Ser Thr Ser Tyr Asn Ser Gln Arg Trp Leu Asn Leu Tyr Leu Ser Ala		
1715	1720	1725
Cys Lys Phe Leu Asp Leu Ala Leu Ala Leu Pro Ser Glu Asn Leu Pro		
1730	1735	1740
Gln Phe Gln Met Tyr Arg Trp Ala Phe Ile Pro Glu Ala Ser Asp Asp		

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<210> 3531
<211> 641
<212> PRT
<213> Homo sapiens
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<400> 3531																
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Leu	Lys	Glu	Asn 20	Leu	Glu	Asp	Ile	Ser 25	Gly	Trp	Gly	Leu	Pro 30	Glu	Ala	
Arg	Ser	Lys 35	Glu	Ser	Val	Ser	Phe 40	Lys	Asp	Val	Ala	Val 45	Asp	Phe	Thr	
Gln	Glu 50	Glu	Trp	Gly	Gln	Leu 55	Asp	Ser	Pro	Gln	Arg 60	Ala	Leu	Tyr	Arg	
Asp 65	Val	Met	Leu	Glu	Asn 70	Tyr	Gln	Asn	Leu	Leu 75	Ala	Leu	Gly	Pro 80	Pro	
Leu	His	Lys	Pro	Asp 85	Val	Ile	Ser	His 90	Leu	Glu	Arg	Gly	Glu 95	Glu	Pro	
Trp	Ser	Met 100	Gln	Arg	Glu	Val	Pro	Arg 105	Gly	Pro	Cys	Pro	Glu 110	Trp	Glu	
Leu	Lys	Ala 115	Val	Pro	Ser	Gln	Gln 120	Gln	Gly	Ile	Cys 125	Lys	Glu	Glu	Pro	
Ala 130	Gln	Glu	Pro	Ile	Met	Glu 135	Arg	Pro	Leu	Gly	Gly 140	Ala	Gln	Ala	Trp	
Gly 145	Arg	Gln	Ala	Gly	Ala 150	Leu	Gln	Arg	Ser	Gln 155	Ala	Ala	Pro	Gly 160	Arg	
Arg	Thr	Cys	His	Gly 165	Leu	Gly	Arg	Pro 170	Val	Glu	Glu	Phe	Pro 175	Leu	Arg	
Cys	Pro	Leu	Phe 180	Ala	Gln	Gln	Arg	Val 185	Pro	Glu	Gly	Gly 190	Pro	Leu	Leu	
Asp	Thr 195	Arg	Lys	Asn	Val	Gln 200	Ala	Thr	Glu	Gly	Arg 205	Thr	Lys	Ala	Pro	
Ala 210	Arg	Leu	Cys	Ala	Gly	Glu 215	Asn	Ala	Ser	Thr	Pro 220	Ser	Glu	Pro	Glu	
Lys 225	Phe	Pro	Gln	Val	Arg 230	Arg	Gln	Arg	Gly	Ala 235	Gly	Ala	Gly	Glu 240	Gly	
Glu	Phe	Val	Cys	Gly 245	Glu	Cys	Gly	Lys 250	Ala	Phe	Arg 255	Gln	Ser	Ser	Ser	
Leu	Thr	Leu	His 260	Arg	Arg	Trp	His 265	Ser	Arg	Glu	Lys 270	Ala	Tyr	Lys	Cys	
Asp	Glu	Cys	Gly	Lys	Ala	Phe	Thr	Trp	Ser	Thr	Asn	Leu	Leu	Glu	His	

275	280	285
Arg Arg Ile His Thr Gly Glu Lys Pro Phe Phe Cys Gly Glu Cys Gly		
290	295	300
Lys Ala Phe Ser Cys His Ser Ser Leu Asn Val His Gln Arg Ile His		
305	310	315
Thr Gly Glu Arg Pro Tyr Lys Cys Ser Ala Cys Glu Lys Ala Phe Ser		
325	330	335
Cys Ser Ser Leu Leu Ser Met His Leu Arg Val His Thr Gly Glu Lys		
340	345	350
Pro Tyr Arg Cys Gly Glu Cys Gly Lys Ala Phe Asn Gln Arg Thr His		
355	360	365
Leu Thr Arg His His Arg Ile His Thr Gly Glu Lys Pro Tyr Gln Cys		
370	375	380
Gly Ser Cys Gly Lys Ala Phe Thr Cys His Ser Ser Leu Thr Val His		
385	390	395
Glu Lys Ile His Ser Gly Asp Lys Pro Phe Lys Cys Ser Asp Cys Glu		
405	410	415
Lys Ala Phe Asn Ser Arg Ser Arg Leu Thr Leu His Gln Arg Thr His		
420	425	430
Thr Gly Glu Lys Pro Phe Lys Cys Ala Asp Cys Gly Lys Gly Phe Ser		
435	440	445
Cys His Ala Tyr Leu Leu Val His Arg Arg Ile His Ser Gly Glu Lys		
450	455	460
Pro Phe Lys Cys Asn Glu Cys Gly Lys Ala Phe Ser Ser His Ala Tyr		
465	470	475
Leu Ile Val His Arg Arg Ile His Thr Gly Glu Lys Pro Phe Asp Cys		
485	490	495
Ser Gln Cys Trp Lys Ala Phe Ser Cys His Ser Ser Leu Ile Val His		
500	505	510
Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Ser Glu Cys Gly		
515	520	525
Arg Ala Phe Ser Gln Asn His Cys Leu Ile Lys His Gln Lys Ile His		
530	535	540
Ser Gly Glu Lys Ser Phe Lys Cys Glu Lys Cys Gly Glu Met Phe Asn		
545	550	555
Trp Ser Ser His Leu Thr Glu His Gln Arg Leu His Ser Glu Gly Lys		
565	570	575
Pro Leu Ala Ile Gln Phe Asn Lys His Leu Leu Ser Thr Tyr Tyr Val		
580	585	590
Pro Gly Ser Leu Leu Gly Ala Gly Asp Ala Gly Leu Arg Asp Val Asp		
595	600	605
Pro Ile Asp Ala Leu Asp Val Ala Lys Leu Leu Cys Val Val Pro Pro		
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Arg Ala Gly Arg Asn Phe Ser Leu Gly Ser Lys Pro Arg Asn		
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		638

<210> 3532

<211> 1205

<212> PRT

<213> Homo sapiens

<400> 3532

His Arg Glu Leu Gln Asp Ser Pro Ser Ala Glu Pro Pro Ala Gly Ser	
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Met Pro Leu Arg His Trp Gly Met Ala Arg Gly Ser Lys Pro Val Gly	
20	25
Asp Gly Ala Gln Pro Met Ala Ala Met Gly Gly Leu Lys Val Leu Leu	
35	40
His Trp Ala Gly Pro Gly Gly Gly Glu Pro Trp Val Thr Phe Ser Glu	
50	55
Ser Ser Leu Thr Ala Glu Glu Val Cys Ile His Ile Ala His Lys Val	
	60

65					70					75				80	
Gly	Ile	Thr	Pro	Pro	Cys	Phe	Asn	Leu	Phe	Ala	Leu	Phe	Asp	Ala	Gln
				85					90					95	
Ala	Gln	Val	Trp	Leu	Pro	Pro	Asn	His	Ile	Leu	Glu	Ile	Pro	Arg	Asp
			100					105					110		
Ala	Ser	Leu	Met	Leu	Tyr	Phe	Arg	His	Arg	Phe	Tyr	Ser	Arg	Asn	Trp
			115				120						125		
His	Gly	Met	Asn	Pro	Arg	Glu	Pro	Ala	Val	Tyr	Arg	Cys	Gly	Pro	Pro
			130			135					140				
Gly	Thr	Glu	Ala	Ser	Ser	Asp	Gln	Thr	Ala	Gln	Gly	Met	Gln	Leu	Leu
145					150					155				160	
Asp	Pro	Ala	Ser	Phe	Glu	Tyr	Leu	Phe	Glu	Gln	Gly	Lys	His	Glu	Phe
				165					170					175	
Val	Asn	Asp	Val	Ala	Ser	Leu	Trp	Glu	Leu	Ser	Thr	Glu	Glu	Glu	Ile
			180					185					190		
His	His	Phe	Lys	Asn	Glu	Ser	Leu	Gly	Met	Ala	Phe	Leu	His	Leu	Cys
			195				200					205			
His	Leu	Ala	Leu	Arg	His	Gly	Ile	Pro	Leu	Glu	Glu	Val	Ala	Lys	Lys
			210			215					220				
Thr	Ser	Phe	Lys	Asp	Cys	Ile	Pro	Arg	Ser	Phe	Arg	Arg	His	Ile	Arg
225				230						235				240	
Gln	His	Ser	Ala	Leu	Thr	Arg	Leu	Arg	Leu	Arg	Asn	Val	Phe	Arg	Arg
				245					250					255	
Phe	Leu	Arg	Asp	Phe	Gln	Pro	Gly	Arg	Leu	Ser	Gln	Gln	Met	Val	Met
			260					265					270		
Val	Lys	Tyr	Leu	Ala	Thr	Leu	Glu	Arg	Leu	Ala	Pro	Arg	Phe	Gly	Thr
			275				280					285			
Glu	Arg	Val	Pro	Val	Cys	His	Leu	Arg	Leu	Leu	Ala	Gln	Ala	Glu	Gly
			290			295				300					
Glu	Pro	Cys	Tyr	Ile	Arg	Asp	Ser	Gly	Val	Ala	Pro	Thr	Asp	Pro	Gly
305				310						315				320	
Pro	Glu	Ser	Ala	Ala	Gly	Pro	Pro	Thr	His	Glu	Val	Leu	Val	Thr	Gly
				325					330					335	
Thr	Gly	Gly	Ile	Gln	Trp	Trp	Pro	Val	Glu	Glu	Glu	Val	Asn	Lys	Glu
			340					345					350		
Glu	Gly	Ser	Ser	Gly	Ser	Ser	Gly	Arg	Asn	Pro	Gln	Ala	Ser	Leu	Phe
			355				360					365			
Gly	Lys	Lys	Ala	Lys	Ala	His	Lys	Ala	Phe	Gly	Gln	Pro	Ala	Asp	Arg
			370			375					380				
Pro	Arg	Glu	Pro	Leu	Gly	Ala	Tyr	Phe	Cys	Asp	Phe	Arg	Asp	Ile	Thr
385				390						395				400	
His	Val	Gly	Leu	Lys	Glu	His	Cys	Val	Ser	Ile	His	Arg	Gln	Asp	Asn
				405					410					415	
Lys	Cys	Leu	Glu	Leu	Ser	Leu	Pro	Ser	Arg	Ala	Ala	Ala	Leu	Ser	Phe
			420					425					430		
Val	Ser	Leu	Val	Asp	Gly	Tyr	Phe	Arg	Leu	Thr	Ala	Asp	Ser	Ser	His
			435				440					445			
Tyr	Leu	Cys	His	Glu	Val	Ala	Pro	Pro	Arg	Leu	Val	Met	Ser	Ile	Arg
			450			455					460				
Asp	Gly	Ile	His	Gly	Pro	Leu	Leu	Glu	Pro	Phe	Val	Gln	Ala	Lys	Leu
465				470						475				480	
Arg	Pro	Glu	Asp	Gly	Leu	Tyr	Leu	Ile	His	Trp	Ser	Thr	Ser	His	Pro
				485					490					495	
Tyr	Arg	Leu	Ile	Leu	Thr	Val	Ala	Gln	Arg	Ser	Gln	Ala	Pro	Asp	Gly
			500					505					510		
Met	Gln	Ser	Leu	Arg	Leu	Arg	Lys	Phe	Pro	Ile	Glu	Gln	Gln	Asp	Gly
			515				520					525			
Ala	Phe	Val	Leu	Glu	Gly	Trp	Gly	Arg	Ser	Phe	Pro	Ser	Val	Arg	Glu
			530			535					540				
Leu	Gly	Ala	Ala	Leu	Gln	Gly	Cys	Leu	Leu	Arg	Ala	Gly	Asp	Asp	Cys
545				550						555				560	
Phe	Ser	Leu	Arg	Arg	Cys	Cys	Leu	Pro	Gln	Pro	Gly	Glu	Thr	Ser	Asn
				565					570					575	
Leu	Ile	Ile	Met	Arg	Gly	Ala	Arg	Ala	Ser	Pro	Arg	Thr	Leu	Asn	Leu

			580					585					590				
Ser	Gln	Leu	Ser	Phe	His	Arg	Val	Asp	Gln	Lys	Glu	Ile	Thr	Gln	Leu		
		595					600					605					
Ser	His	Leu	Gly	Gln	Gly	Thr	Arg	Thr	Asn	Val	Tyr	Glu	Gly	Arg	Leu		
	610					615					620						
Arg	Val	Glu	Gly	Ser	Gly	Asp	Pro	Glu	Glu	Gly	Lys	Met	Asp	Asp	Glu		
625					630					635					640		
Asp	Pro	Leu	Val	Pro	Gly	Arg	Asp	Arg	Gly	Gln	Glu	Leu	Arg	Val	Val		
			645					650					655				
Leu	Lys	Val	Leu	Asp	Pro	Ser	His	His	Asp	Ile	Ala	Leu	Ala	Phe	Tyr		
		660					665						670				
Glu	Thr	Ala	Ser	Leu	Met	Ser	Gln	Val	Ser	His	Thr	His	Leu	Ala	Phe		
	675					680						685					
Val	His	Gly	Val	Cys	Val	Arg	Gly	Pro	Glu	Asn	Ile	Met	Val	Thr	Glu		
	690				695						700						
Tyr	Val	Glu	His	Gly	Pro	Leu	Asp	Val	Trp	Leu	Arg	Arg	Glu	Arg	Gly		
705					710					715					720		
His	Val	Pro	Met	Ala	Trp	Lys	Met	Val	Val	Ala	Gln	Gln	Leu	Ala	Ser		
			725					730					735				
Ala	Leu	Ser	Tyr	Leu	Glu	Asn	Lys	Asn	Leu	Val	His	Gly	Asn	Val	Cys		
		740						745				750					
Gly	Arg	Asn	Ile	Leu	Leu	Ala	Arg	Leu	Gly	Leu	Ala	Glu	Gly	Thr	Ser		
	755						760					765					
Pro	Phe	Ile	Lys	Leu	Ser	Asp	Pro	Gly	Val	Gly	Leu	Gly	Ala	Leu	Ser		
	770					775					780						
Arg	Glu	Glu	Arg	Val	Glu	Arg	Ile	Pro	Trp	Leu	Ala	Pro	Glu	Cys	Leu		
785					790					795					800		
Pro	Gly	Gly	Ala	Asn	Ser	Leu	Ser	Thr	Ala	Met	Asp	Lys	Trp	Gly	Phe		
			805					810					815				
Gly	Ala	Thr	Leu	Leu	Glu	Ile	Cys	Phe	Asp	Gly	Glu	Ala	Pro	Leu	Gln		
		820						825				830					
Ser	Arg	Ser	Pro	Ser	Glu	Lys	Glu	His	Phe	Tyr	Gln	Arg	Gln	His	Arg		
	835						840					845					
Leu	Pro	Glu	Pro	Ser	Cys	Pro	Gln	Leu	Ala	Thr	Leu	Thr	Ser	Gln	Cys		
	850					855					860						
Leu	Thr	Tyr	Glu	Pro	Thr	Gln	Arg	Pro	Ser	Phe	Arg	Thr	Ile	Leu	Arg		
865					870					875					880		
Asp	Leu	Thr	Arg	Leu	Gln	Pro	His	Asn	Leu	Ala	Asp	Val	Leu	Thr	Val		
				885				890					895				
Asn	Pro	Asp	Ser	Pro	Ala	Ser	Asp	Pro	Thr	Val	Phe	His	Lys	Arg	Tyr		
		900						905					910				
Leu	Lys	Lys	Ile	Arg	Asp	Leu	Gly	Glu	Gly	His	Phe	Gly	Lys	Val	Ser		
	915						920					925					
Leu	Tyr	Cys	Tyr	Asp	Pro	Thr	Asn	Asp	Gly	Thr	Gly	Glu	Met	Val	Ala		
	930					935					940						
Val	Lys	Ala	Leu	Lys	Ala	Asp	Cys	Gly	Pro	Gln	His	Arg	Ser	Gly	Trp		
945					950					955					960		
Lys	Gln	Glu	Ile	Asp	Ile	Leu	Arg	Thr	Leu	Tyr	His	Glu	His	Ile	Ile		
				965				970						975			
Lys	Tyr	Lys	Gly	Cys	Cys	Glu	Asp	Gln	Gly	Glu	Lys	Ser	Leu	Gln	Leu		
		980						985					990				
Val	Met	Glu	Tyr	Val	Pro	Leu	Gly	Ser	Leu	Arg	Asp	Tyr	Leu	Pro	Arg		
	995					1000					1005						
His	Ser	Ile	Gly	Leu	Ala	Gln	Leu	Leu	Leu	Phe	Ala	Gln	Gln	Ile	Cys		
	1010					1015					1020						
Glu	Gly	Met	Ala	Tyr	Leu	His	Ala	Gln	His	Tyr	Ile	His	Arg	Asp	Leu		
1025					1030					1035					1040		
Ala	Ala	Arg	Asn	Val	Leu	Leu	Asp	Asn	Asp	Arg	Leu	Val	Lys	Ile	Gly		
			1045					1050					1055				
Asp	Phe	Gly	Leu	Ala	Lys	Ala	Val	Pro	Glu	Gly	His	Glu	Tyr	Tyr	Arg		
	1060							1065					1070				
Val	Arg	Glu	Asp	Gly	Asp	Ser	Pro	Val	Phe	Trp	Tyr	Ala	Pro	Glu	Cys		
	1075					1080					1085						
Leu	Lys	Glu	Tyr	Lys	Phe	Tyr	Tyr	Ala	Ser	Asp	Val	Trp	Ser	Phe	Gly		

1090	1095	1100
Val Thr Leu Tyr Glu Leu Leu Thr His Cys Asp Ser Ser Gln Ser Pro		
1105	1110	1115
Pro Thr Lys Phe Leu Glu Leu Ile Gly Ile Ala Gln Gly Gln Met Thr		1120
	1125	1130
Val Leu Arg Leu Thr Glu Leu Leu Glu Arg Gly Glu Arg Leu Pro Arg		1135
	1140	1145
Pro Asp Lys Cys Pro Cys Glu Val Tyr His Leu Met Lys Asn Cys Trp		1150
	1155	1160
Glu Thr Glu Ala Ser Phe Arg Pro Thr Phe Glu Asn Leu Ile Pro Ile		1165
	1170	1175
Leu Lys Thr Val His Glu Lys Tyr Gln Gly Gln Ala Pro Ser Val Phe		1180
1185	1190	1195
Ser Val Cys		1200
1203		

<210> 3533
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 <212> PRT
 <213> Homo sapiens

<400> 3533

Phe Arg Trp Leu Asp Phe Phe Arg Gly Ser Ile Asn Ser Gln Phe Glu		
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Phe Gly Arg Lys Lys Glu Asn Met Thr Ser Pro Ala Lys Phe Lys Lys		15
	20	25
Asp Lys Glu Ile Ile Ala Glu Tyr Asp Thr Gln Val Lys Glu Ile Arg		30
	35	40
Ala Gln Leu Thr Glu Gln Met Lys Cys Leu Asp Gln Gln Cys Glu Leu		45
	50	55
Arg Val Gln Leu Leu Gln Asp Leu Gln Asp Phe Phe Arg Lys Lys Ala		60
	65	70
Glu Ile Glu Met Asp Tyr Ser Arg Asn Leu Glu Lys Leu Ala Glu Arg		75
	85	90
Phe Leu Ala Lys Thr Arg Ser Thr Lys Asp Gln Gln Phe Lys Lys Asp		95
	100	105
Gln Asn Val Leu Ser Pro Val Asn Cys Trp Asn Leu Leu Leu Asn Gln		110
	115	120
Val Lys Arg Glu Ser Arg Asp His Thr Thr Leu Ser Asp Ile Tyr Leu		125
	130	135
Asn Asn Ile Ile Pro Arg Phe Val Gln Val Ser Glu Asp Ser Gly Arg		140
	145	150
Leu Phe Lys Lys Ser Lys Glu Val Gly Gln Leu Gln Asp Asp Leu		155
	165	170
Met Lys Val Leu Asn Glu Leu Tyr Ser Val Met Lys Thr Tyr His Met		175
	180	185
Tyr Asn Ala Asp Ser Ile Ser Ala Gln Ser Lys Leu Lys Glu Ala Glu		190
	195	200
Lys Gln Glu Glu Lys Gln Ile Gly Lys Ser Val Lys Gln Glu Asp Arg		205
	210	215
Gln Thr Pro Arg Ser Pro Asp Ser Thr Ala Asn Val Arg Ile Glu Glu		220
	225	230
Lys His Val Arg Arg Ser Ser Val Lys Lys Ile Glu Lys Met Lys Glu		235
	245	250
Lys Arg Gln Ala Lys Tyr Thr Glu Asn Lys Leu Lys Ala Ile Lys Ala		255
	260	265
Arg Asn Glu Tyr Leu Leu Ala Leu Glu Ala Thr Asn Ala Ser Val Phe		270
	275	280
Lys Tyr Tyr Ile His Asp Leu Ser Asp Leu Ile Asp Gln Cys Cys Asp		285
	290	295
Leu Gly Tyr His Ala Ser Leu Asn Arg Ala Leu Arg Thr Phe Leu Ser		300

305		310		315		320									
Ala	Glu	Leu	Asn	Leu	Glu	Gln	Ser	Lys	His	Glu	Gly	Leu	Asp	Ala	Ile
			325						330					335	
Glu	Asn	Ala	Val	Glu	Asn	Leu	Asp	Ala	Thr	Ser	Asp	Lys	Gln	Arg	Leu
			340						345					350	
Met	Glu	Met	Tyr	Asn	Asn	Val	Phe	Cys	Pro	Pro	Met	Lys	Phe	Glu	Phe
			355						360					365	
Gln	Pro	His	Met	Gly	Asp	Met	Ala	Ser	Gln	Leu	Cys	Ala	Gln	Gln	Pro
			370						375					380	
Val	Gln	Ser	Glu	Leu	Leu	Gln	Arg	Cys	Leu	Gln	Leu	Gln	Ser	Arg	Leu
385															400
Ser	Thr	Leu	Lys	Ile	Glu	Asn	Glu	Glu	Val	Lys	Lys	Thr	Met	Glu	Ala
				405						410					415
Thr	Leu	Gln	Thr	Ile	Gln	Asp	Ile	Val	Thr	Val	Glu	Asp	Phe	Asp	Val
				420						425				430	
Ser	Asp	Cys	Phe	Gln	Tyr	Ser	Asn	Ser	Met	Glu	Ser	Val	Lys	Ser	Thr
			435						440					445	
Val	Ser	Glu	Thr	Phe	Met	Ser	Lys	Pro	Ser	Ile	Ala	Lys	Arg	Arg	Ala
			450											460	
Asn	Gln	Gln	Glu	Thr	Glu	Gln	Phe	Tyr	Phe	Thr	Lys	Met	Lys	Glu	Tyr
465															480
Leu	Glu	Gly	Arg	Asn	Leu	Ile	Thr	Lys	Leu	Gln	Ala	Lys	His	Asp	Leu
				485						490					495
Leu	Gln	Lys	Thr	Leu	Gly	Glu	Ser	Gln	Arg	Thr	Asp	Cys	Ser	Leu	Ala
				500						505				510	
Arg	Arg	Ser	Ser	Thr	Val	Arg	Lys	Gln	Asp	Ser	Ser	Gln	Ala	Ile	Pro
			515						520					525	
Leu	Val	Val	Glu	Ser	Cys	Ile	Arg	Phe	Ile	Ser	Arg	His	Gly	Leu	Gln
			530											540	
His	Glu	Gly	Ile	Phe	Arg	Val	Ser	Gly	Ser	Gln	Val	Glu	Val	Asn	Asp
545															560
Ile	Lys	Asn	Ala	Phe	Glu	Arg	Gly	Glu	Asp	Pro	Leu	Ala	Gly	Asp	Gln
				565						570					575
Asn	Asp	His	Asp	Met	Asp	Ser	Ile	Ala	Gly	Val	Leu	Lys	Leu	Tyr	Phe
				580						585				590	
Arg	Gly	Leu	Glu	His	Pro	Leu	Phe	Pro	Lys	Asp	Ile	Phe	His	Asp	Leu
			595							600				605	
Met	Ala	Cys	Val	Thr	Met	Asp	Asn	Leu	Gln	Glu	Arg	Ala	Leu	His	Ile
Arg	Lys	Val	Leu	Leu	Val	Leu	Pro	Lys	Thr	Thr	Leu	Ile	Ile	Met	Arg
625															640
Tyr	Leu	Phe	Ala	Phe	Leu	Asn	His	Leu	Ser	Gln	Phe	Ser	Glu	Glu	Asn
				645						650					655
Met	Met	Asp	Pro	Tyr	Asn	Leu	Ala	Ile	Cys	Phe	Gly	Pro	Ser	Leu	Met
				660						665				670	
Ser	Val	Pro	Glu	Gly	His	Asp	Gln	Val	Ser	Cys	Gln	Ala	His	Val	Asn
				675										685	
Glu	Leu	Ile	Lys	Thr	Ile	Ile	Ile	Gln	His	Glu	Asn	Ile	Phe	Pro	Ser
														700	
Pro	Arg	Glu	Leu	Glu	Gly	Pro	Val	Tyr	Ser	Arg	Gly	Gly	Ser	Met	Glu
705															720
Asp	Tyr	Cys	Asp	Ser	Pro	His	Gly	Glu	Thr	Thr	Ser	Val	Glu	Asp	Ser
				725						730					735
Thr	Gln	Asp	Val	Thr	Ala	Glu	His	His	Thr	Ser	Asp	Asp	Glu	Cys	Glu
				740						745				750	
Pro	Ile	Glu	Ala	Ile	Ala	Lys	Phe	Asp	Tyr	Val	Gly	Arg	Thr	Ala	Arg
				755										765	
Glu	Leu	Ser	Phe	Lys	Lys	Gly	Ala	Ser	Leu	Leu	Leu	Tyr	Gln	Arg	Ala
Ser	Asp	Asp	Trp	Trp	Glu	Gly	Arg	His	Asn	Gly	Ile	Asp	Gly	Leu	Ile
785															800
Pro	His	Gln	Tyr	Ile	Val	Val	Gln	Asp	Thr	Glu	Asp	Gly	Val	Val	Glu
				805						810				815	
Arg	Ser	Ser	Pro	Lys	Ser	Glu	Ile	Glu	Val	Ile	Ser	Glu	Pro	Pro	Glu

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<210> 3534
<211> 882
<212> PRT
<213> Homo sapiens
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Arg	Asp	Ala	Ala	Ser	Ser	Ala	Pro	Arg	Gly	Met	Ala	Ser	Glu	Gly	Pro	
			20					25					30			
Arg	Glu	Pro	Glu	Ser	Glu	Gly	Ile	Lys	Leu	Ser	Ala	Asp	Val	Lys	Pro	
			35				40					45				
Phe	Val	Pro	Arg	Phe	Ala	Gly	Leu	Asn	Val	Ala	Trp	Leu	Glu	Ser	Ser	
	50					55					60					
Glu	Ala	Cys	Val	Phe	Pro	Ser	Ser	Ala	Ala	Thr	Tyr	Tyr	Pro	Phe	Val	
65					70					75					80	
Gln	Glu	Pro	Pro	Val	Thr	Glu	Gln	Lys	Ile	Tyr	Thr	Glu	Asp	Met	Ala	
				85					90					95		
Phe	Gly	Ala	Ser	Thr	Phe	Pro	Pro	Gln	Tyr	Leu	Ser	Ser	Glu	Ile	Thr	
			100					105					110			
Leu	His	Pro	Tyr	Ala	Tyr	Ser	Pro	Tyr	Thr	Leu	Asp	Ser	Thr	Gln	Asn	
		115					120					125				
Val	Tyr	Ser	Val	Pro	Gly	Ser	Gln	Tyr	Leu	Tyr	Asn	Gln	Pro	Ser	Cys	
	130					135					140					
Tyr	Arg	Gly	Phe	Gln	Thr	Val	Lys	His	Arg	Asn	Glu	Asn	Thr	Cys	Pro	

145		150		155		160									
Leu	Pro	Gln	Glu	Met	Lys	Ala	Leu	Phe	Lys	Lys	Lys	Thr	Tyr	Asp	Glu
		165							170					175	
Lys	Lys	Thr	Tyr	Asp	Gln	Gln	Lys	Phe	Asp	Ser	Glu	Arg	Ala	Asp	Gly
		180						185					190		
Thr	Ile	Ser	Ser	Glu	Ile	Lys	Ser	Ala	Arg	Gly	Ser	His	His	Leu	Ser
		195					200					205			
Ile	Tyr	Ala	Glu	Asn	Ser	Leu	Lys	Ser	Asp	Gly	Tyr	His	Lys	Arg	Thr
	210					215					220				
Asp	Arg	Lys	Ser	Arg	Ile	Ile	Ala	Lys	Asn	Val	Ser	Thr	Ser	Lys	Pro
225					230					235				240	
Glu	Phe	Glu	Phe	Thr	Thr	Leu	Asp	Phe	Pro	Glu	Leu	Gln	Gly	Ala	Glu
				245					250					255	
Asn	Asn	Met	Ser	Glu	Ile	Gln	Lys	Gln	Pro	Lys	Trp	Gly	Pro	Val	His
		260						265					270		
Ser	Val	Ser	Thr	Asp	Ile	Ser	Leu	Leu	Arg	Glu	Val	Val	Lys	Pro	Ala
		275					280					285			
Ala	Val	Leu	Ser	Lys	Gly	Glu	Ile	Val	Val	Lys	Asn	Asn	Pro	Asn	Glu
	290					295					300				
Ser	Val	Thr	Ala	Asn	Ala	Ala	Thr	Asn	Ser	Pro	Ser	Cys	Thr	Arg	Glu
305					310					315				320	
Leu	Ser	Trp	Thr	Pro	Met	Gly	Tyr	Val	Val	Arg	Gln	Thr	Leu	Ser	Thr
				325					330					335	
Glu	Leu	Ser	Ala	Ala	Pro	Lys	Asn	Val	Thr	Ser	Met	Ile	Asn	Leu	Lys
			340					345				350			
Thr	Ile	Ala	Ser	Ser	Ala	Asp	Pro	Lys	Asn	Val	Ser	Ile	Pro	Ser	Ser
		355					360					365			
Glu	Ala	Leu	Ser	Ser	Asp	Pro	Ser	Tyr	Asn	Lys	Glu	Lys	His	Ile	Ile
	370				375						380				
His	Pro	Thr	Gln	Lys	Ser	Lys	Ala	Ser	Gln	Gly	Ser	Asp	Leu	Glu	Gln
385					390					395				400	
Asn	Glu	Ala	Ser	Arg	Lys	Asn	Lys	Lys	Lys	Lys	Glu	Lys	Ser	Thr	Ser
				405					410					415	
Lys	Tyr	Glu	Val	Leu	Thr	Val	Gln	Glu	Pro	Pro	Arg	Ile	Glu	Asp	Ala
			420					425					430		
Glu	Glu	Phe	Pro	Asn	Leu	Ala	Val	Ala	Ser	Glu	Arg	Arg	Asp	Arg	Ile
		435				440					445				
Glu	Thr	Pro	Lys	Phe	Gln	Ser	Lys	Gln	Gln	Pro	Gln	Asp	Asn	Phe	Lys
	450					455					460				
Asn	Asn	Val	Lys	Lys	Ser	Gln	Leu	Pro	Val	Gln	Leu	Asp	Leu	Gly	Gly
465					470					475				480	
Met	Leu	Thr	Ala	Leu	Glu	Lys	Lys	Gln	His	Ser	Gln	His	Ala	Lys	Gln
				485					490					495	
Ser	Ser	Lys	Pro	Val	Val	Val	Ser	Val	Gly	Ala	Val	Pro	Val	Leu	Ser
			500					505					510		
Lys	Glu	Cys	Ala	Ser	Gly	Glu	Arg	Gly	Arg	Arg	Met	Ser	Gln	Met	Lys
		515					520					525			
Thr	Pro	His	Asn	Pro	Leu	Asp	Ser	Ser	Ala	Pro	Leu	Met	Lys	Lys	Gly
	530					535					540				
Lys	Gln	Arg	Glu	Ile	Pro	Lys	Ala	Lys	Lys	Pro	Thr	Ser	Leu	Lys	Lys
545					550					555				560	
Ile	Ile	Leu	Lys	Glu	Arg	Gln	Glu	Arg	Lys	Gln	Arg	Leu	Gln	Glu	Asn
				565					570					575	
Ala	Val	Ser	Pro	Ala	Phe	Thr	Ser	Asp	Asp	Thr	Gln	Asp	Gly	Glu	Ser
			580					585					590		
Gly	Gly	Asp	Asp	Gln	Phe	Pro	Glu	Gln	Ala	Glu	Leu	Ser	Gly	Pro	Glu
		595					600					605			
Gly	Met	Asp	Glu	Leu	Ile	Ser	Thr	Pro	Ser	Val	Glu	Asp	Lys	Ser	Glu
	610					615					620				
Glu	Pro	Pro	Gly	Thr	Glu	Leu	Gln	Arg	Asp	Thr	Glu	Ala	Ser	His	Leu
625					630					635				640	
Ala	Pro	Asn	His	Thr	Thr	Phe	Pro	Lys	Ile	His	Ser	Arg	Arg	Phe	Arg
				645					650					655	
Asp	Tyr	Cys	Ser	Gln	Met	Leu	Ser	Lys	Glu	Val	Asp	Ala	Cys	Val	Thr

660	665	670
Asp Leu Leu Lys Glu Leu Val Arg Phe Gln Asp Arg Met Tyr Gln Lys		
675	680	685
Asp Pro Val Lys Ala Lys Thr Lys Arg Arg Leu Val Leu Gly Leu Arg		
690	695	700
Glu Val Leu Lys His Leu Lys Leu Lys Lys Leu Lys Cys Val Ile Ile		
705	710	715
Ser Pro Asn Cys Glu Lys Ile Gln Ser Lys Gly Gly Leu Asp Asp Thr		
725	730	735
Leu His Thr Ile Ile Asp Tyr Ala Cys Glu Gln Asn Ile Pro Phe Val		
740	745	750
Phe Ala Leu Asn Arg Lys Ala Leu Gly Arg Ser Leu Asn Lys Ala Val		
755	760	765
Pro Val Ser Val Val Gly Ile Phe Ser Tyr Asp Gly Ala Gln Asp Gln		
770	775	780
Phe His Lys Met Val Glu Leu Thr Val Ala Ala Arg Gln Ala Tyr Lys		
785	790	795
Thr Met Leu Glu Asn Val Gln Gln Glu Leu Val Gly Glu Pro Ser Leu		
805	810	815
Arg His Leu Pro Ala Tyr Pro His Arg Ala Pro Ala Ala Leu Gln Lys		
820	825	830
Met Ala Pro Gln Pro Val Lys Glu Lys Glu Glu Pro His Tyr Ile Glu		
835	840	845
Ile Trp Lys Lys His Leu Glu Ala Tyr Ser Gly Cys Thr Leu Glu Leu		
850	855	860
Glu Glu Ser Leu Glu Ala Ser Thr Ser Gln Met Met Asn Leu Asn Leu		
865	870	875
		880

<210> 3535

<211> 256

<212> PRT

<213> Homo sapiens

<400> 3535

Leu Phe Gln Phe Gln Val Cys Arg Ser Val Leu Ser Pro Arg Ala Ala	
1 5 10 15	
Gly Cys Thr Trp Ser Leu Ala Pro Arg Ser Arg Gly Ala Ala Gly Ser	
20 25 30	
Pro Arg Arg Tyr Arg Gly Pro Gln Pro Gln Pro Ala Pro Pro Ser Ala	
35 40 45	
Leu Pro Asn Ser Arg Pro Ser Pro Val Ala Ser Gly Arg Glu Met Val	
50 55 60	
Val Leu Ser Val Pro Ala Glu Val Thr Val Ile Leu Leu Asp Ile Glu	
65 70 75 80	
Gly Thr Thr Thr Pro Ile Ala Phe Val Lys Asp Ile Leu Phe Pro Tyr	
85 90 95	
Ile Glu Glu Asn Val Lys Glu Tyr Leu Gln Thr His Trp Glu Glu Glu	
100 105 110	
Glu Cys Gln Gln Asp Val Ser Leu Leu Arg Lys Gln Val Phe Ala Asp	
115 120 125	
Val Val Pro Ala Val Arg Lys Trp Arg Glu Ala Gly Met Lys Val Tyr	
130 135 140	
Ile Tyr Ser Ser Gly Ser Val Glu Ala Gln Lys Leu Leu Phe Gly His	
145 150 155 160	
Ser Thr Glu Gly Asp Ile Leu Glu Leu Val Asp Gly His Phe Asp Thr	
165 170 175	
Lys Ile Gly His Lys Val Glu Ser Glu Ser Tyr Arg Lys Ile Ala Asp	
180 185 190	
Ser Ile Gly Cys Ser Thr Asn Asn Ile Leu Phe Leu Thr Asp Val Thr	

195	200	205
Arg Glu Ala Ser Ala Ala	Glu Glu Ala Asp Val His Val Ala Val Val	
210	215	220
Val Arg Pro Gly Asn Ala	Gly Leu Thr Asp Asp Glu Lys Thr Tyr Tyr	
225	230	235
Ser Leu Ile Thr Ser Phe	Ser Glu Leu Tyr Leu Pro Ser Ser Thr	240
245	250	255

<210> 3536
 <211> 434
 <212> PRT
 <213> Homo sapiens

<400> 3536

Gly Arg Pro Pro Thr Ala Pro His Thr Gly Arg Pro Pro Thr Ala Asn	
1 5 10 15	
Arg Gly Asp Pro Arg Leu Asp Leu Lys Arg Gly Cys Ala Arg Leu Leu	
20 25 30	
Thr Ser Ile Glu Ser Arg Gly Arg Pro Ala Ala Ser Ala Gly Leu Arg	
35 40 45	
Arg Asp Arg Cys Ala Leu Arg Arg Trp Pro Leu Arg Arg Ala Pro Leu	
50 55 60	
Ala Arg Ala Thr Arg Arg Arg Ala Gly Ser Pro Arg Arg Cys Ala Pro	
65 70 75 80	
Arg Pro Arg Ala Cys Pro Gln Gly Trp Ser Arg Ala Arg His Gln Pro	
85 90 95	
Gly Gly Leu Cys Leu Leu Leu Leu Leu Cys Gln Phe Met Glu Asp	
100 105 110	
Arg Ser Ala Gln Ala Gly Asn Cys Trp Leu Arg Gln Ala Lys Asn Gly	
115 120 125	
Arg Cys Gln Val Leu Tyr Lys Thr Glu Leu Ser Lys Glu Glu Cys Cys	
130 135 140	
Ser Thr Gly Arg Leu Ser Thr Ser Trp Thr Glu Glu Asp Val Asn Asp	
145 150 155 160	
Asn Thr Leu Phe Lys Trp Met Ile Phe Asn Gly Gly Ala Pro Asn Cys	
165 170 175	
Ile Pro Cys Lys Glu Thr Cys Glu Asn Val Asp Cys Gly Pro Gly Lys	
180 185 190	
Lys Cys Arg Met Asn Lys Lys Asn Lys Pro Arg Cys Val Cys Ala Pro	
195 200 205	
Asp Cys Ser Asn Ile Thr Trp Lys Gly Pro Val Cys Gly Leu Asp Gly	
210 215 220	
Lys Thr Tyr Arg Asn Glu Cys Ala Leu Leu Lys Ala Arg Cys Lys Glu	
225 230 235 240	
Gln Pro Glu Leu Glu Val Gln Tyr Gln Gly Arg Cys Lys Lys Thr Cys	
245 250 255	
Arg Asp Val Phe Cys Pro Gly Ser Ser Thr Cys Val Val Asp Gln Thr	
260 265 270	
Asn Asn Ala Tyr Cys Val Thr Cys Asn Arg Ile Cys Pro Glu Pro Ala	
275 280 285	
Ser Ser Glu Gln Tyr Leu Cys Gly Asn Asp Gly Val Thr Tyr Ser Ser	
290 295 300	
Ala Cys His Leu Arg Lys Ala Thr Cys Leu Leu Gly Arg Ser Ile Gly	
305 310 315 320	
Leu Ala Tyr Glu Gly Lys Cys Ile Lys Ala Lys Ser Cys Glu Asp Ile	
325 330 335	
Gln Cys Thr Gly Gly Lys Lys Cys Leu Trp Asp Phe Lys Val Gly Arg	
340 345 350	
Gly Arg Cys Ser Leu Cys Asp Glu Leu Cys Pro Asp Ser Lys Ser Asp	
355 360 365	
Glu Pro Val Cys Ala Ser Asp Asn Ala Thr Tyr Ala Ser Glu Cys Ala	

370	375	380
Met Lys Glu Ala Ala Cys Ser Ser Gly Val Leu Leu Glu Val Lys His		
385	390	395
Ser Gly Ser Cys Asn Ser Ile Ser Glu Asp Thr Glu Glu Glu Glu Glu		400
	405	410
Asp Glu Asp Gln Asp Tyr Ser Phe Pro Ile Ser Ser Ile Leu Glu Trp		415
	420	425
		430
		432

<210> 3537

<211> 613

<212> PRT

<213> Homo sapiens

<400> 3537

Ile Gly Leu Phe Leu Gln Val Ala Pro Leu Ser Val Met Ala Lys Ser	
1 5 10 15	
Cys Pro Ser Val Cys Arg Cys Asp Ala Gly Phe Ile Tyr Cys Asn Asp	
20 25 30	
Arg Phe Leu Thr Ser Ile Pro Thr Gly Ile Pro Glu Asp Ala Thr Thr	
35 40 45	
Leu Tyr Leu Gln Asn Asn Gln Ile Asn Asn Ala Gly Ile Pro Ser Asp	
50 55 60	
Leu Lys Asn Leu Leu Lys Val Glu Arg Ile Tyr Leu Tyr His Asn Ser	
65 70 75 80	
Leu Asp Glu Phe Pro Thr Asn Leu Pro Lys Tyr Val Lys Glu Leu His	
85 90 95	
Leu Gln Glu Asn Asn Ile Arg Thr Ile Thr Tyr Asp Ser Leu Ser Lys	
100 105 110	
Ile Pro Tyr Leu Glu Glu Leu His Leu Asp Asp Asn Ser Val Ser Ala	
115 120 125	
Val Ser Ile Glu Glu Gly Ala Phe Arg Asp Ser Asn Tyr Leu Arg Leu	
130 135 140	
Leu Phe Leu Ser Arg Asn His Leu Ser Thr Ile Pro Trp Gly Leu Pro	
145 150 155 160	
Arg Thr Ile Glu Glu Leu Arg Leu Asp Asp Asn Arg Ile Ser Thr Ile	
165 170 175	
Ser Ser Pro Ser Leu Gln Gly Leu Thr Ser Leu Lys Arg Leu Val Leu	
180 185 190	
Asp Gly Asn Leu Leu Asn Asn His Gly Leu Gly Asp Lys Val Phe Phe	
195 200 205	
Asn Leu Val Asn Leu Thr Glu Leu Ser Leu Val Arg Asn Ser Leu Thr	
210 215 220	
Ala Ala Pro Val Asn Leu Pro Gly Thr Asn Leu Arg Lys Leu Tyr Leu	
225 230 235 240	
Gln Asp Asn His Ile Asn Arg Val Pro Pro Asn Ala Phe Ser Tyr Leu	
245 250 255	
Arg Gln Leu Tyr Arg Leu Asp Met Ser Asn Asn Asn Leu Ser Asn Leu	
260 265 270	
Pro Gln Gly Ile Phe Asp Asp Leu Asp Asn Ile Thr Gln Leu Ile Leu	
275 280 285	
Arg Asn Asn Pro Trp Tyr Cys Gly Cys Lys Met Lys Trp Val Arg Asp	
290 295 300	
Trp Leu Gln Ser Leu Pro Val Lys Val Asn Val Arg Gly Leu Met Cys	
305 310 315 320	
Gln Ala Pro Glu Lys Val Arg Gly Met Ala Ile Lys Asp Leu Asn Ala	
325 330 335	
Glu Leu Phe Asp Cys Lys Asp Ser Gly Ile Val Ser Thr Ile Gln Ile	
340 345 350	
Thr Thr Ala Ile Pro Asn Thr Val Tyr Pro Ala Gln Gly Gln Trp Pro	

355	360	365
Ala Pro Val Thr Lys Gln Pro Asp Ile Lys Asn Pro Lys Leu Thr Lys		
370	375	380
Asp His Gln Thr Thr Gly Ser Pro Ser Arg Lys Thr Ile Thr Ile Thr		
385	390	395
Val Lys Ser Val Thr Ser Asp Thr Ile His Ile Ser Trp Lys Leu Ala		400
405	410	415
Leu Pro Met Thr Ala Leu Arg Leu Ser Trp Leu Lys Leu Gly His Ser		
420	425	430
Pro Ala Phe Gly Ser Ile Thr Glu Thr Ile Val Thr Gly Glu Arg Ser		
435	440	445
Glu Tyr Leu Val Thr Ala Leu Glu Pro Asp Ser Pro Tyr Lys Val Cys		
450	455	460
Met Val Pro Met Glu Thr Ser Asn Leu Tyr Leu Phe Asp Glu Thr Pro		
465	470	475
Val Cys Ile Glu Thr Glu Thr Ala Pro Leu Arg Met Tyr Asn Pro Thr		480
485	490	495
Thr Thr Leu Asn Arg Glu Gln Glu Lys Glu Pro Tyr Lys Asn Pro Asn		
500	505	510
Leu Pro Leu Ala Ala Ile Ile Gly Gly Ala Val Ala Leu Val Thr Ile		
515	520	525
Ala Leu Leu Ala Leu Val Cys Trp Tyr Val His Arg Asn Gly Ser Leu		
530	535	540
Phe Ser Arg Asn Cys Ala Tyr Ser Lys Gly Arg Arg Arg Lys Asp Asp		
545	550	555
Tyr Ala Glu Ala Gly Thr Lys Lys Asp Asn Ser Ile Leu Glu Ile Arg		560
565	570	575
Glu Thr Ser Phe Gln Met Leu Pro Ile Ser Asn Glu Pro Ile Ser Lys		
580	585	590
Glu Glu Phe Val Ile His Thr Ile Phe Pro Pro Asn Gly Met Asn Leu		
595	600	605
Tyr Lys Asn Asn His		
610	613	

<210> 3538
 <211> 1773
 <212> PRT
 <213> Homo sapiens

<400> 3538
Trp Asn Val Lys Pro Ser Leu Leu Val Val Gln Leu Phe Lys Phe Ser
1 5 10 15
Asp Lys Glu Glu His Glu Gln Asn Asp Ser Ile Ser Gly Lys Thr Gly
20 25 30
Glu Thr Gly Val Glu Glu Met Ile Ala Thr Arg Lys Val Glu Gln Asp
35 40 45
Ser Lys Glu Thr Val Lys Leu Ser His Glu Asp Asp His Ile Leu Glu
50 55 60
Asp Ala Gly Ser Ser Asp Ile Ser Ser Asp Ala Ala Cys Thr Asn Pro
65 70 75 80
Asn Lys Thr Glu Asn Ser Leu Val Gly Leu Pro Ser Cys Val Asp Glu
85 90 95
Val Thr Glu Cys Asn Leu Glu Leu Lys Asp Thr Met Gly Ile Ala Asp
100 105 110
Lys Thr Glu Asn Thr Leu Glu Arg Asn Lys Ile Glu Pro Leu Gly Tyr
115 120 125
Cys Glu Asp Ala Glu Ser Asn Arg Gln Leu Glu Ser Thr Glu Phe Asn
130 135 140
Lys Ser Asn Leu Glu Val Val Asp Thr Ser Thr Phe Gly Pro Glu Ser
145 150 155 160
Asn Ile Leu Glu Asn Ala Ile Cys Asp Val Pro Asp Gln Asn Ser Lys

165																170				175			
Gln	Leu	Asn	Ala	Ile	Glu	Ser	Thr	Lys	Ile	Glu	Ser	His	Glu	Thr	Ala								
180																185				190			
Asn	Leu	Gln	Asp	Asp	Arg	Asn	Ser	Gln	Ser	Ser	Ser	Val	Ser	Tyr	Leu								
195																200				205			
Glu	Ser	Lys	Ser	Val	Lys	Ser	Lys	His	Thr	Lys	Pro	Val	Ile	His	Ser								
210																215				220			
Lys	Gln	Asn	Met	Thr	Thr	Asp	Ala	Pro	Lys	Lys	Ile	Val	Ala	Ala	Lys								
225																230				235			
Tyr	Glu	Val	Ile	His	Ser	Lys	Thr	Lys	Val	Asn	Val	Lys	Ser	Val	Lys								
245																250				255			
Arg	Asn	Thr	Asp	Val	Pro	Glu	Ser	Gln	Gln	Asn	Phe	His	Arg	Pro	Val								
260																265				270			
Lys	Val	Arg	Lys	Lys	Gln	Ile	Asp	Lys	Glu	Pro	Lys	Ile	Gln	Ser	Cys								
275																280				285			
Asn	Ser	Gly	Val	Lys	Ser	Val	Lys	Asn	Gln	Ala	His	Ser	Val	Leu	Lys								
290																295				300			
Lys	Thr	Leu	Gln	Asp	Gln	Thr	Leu	Val	Gln	Ile	Phe	Lys	Pro	Leu	Thr								
305																310				315			
His	Ser	Leu	Ser	Asp	Lys	Ser	His	Ala	His	Pro	Gly	Cys	Leu	Lys	Glu								
325																330				335			
Pro	His	His	Pro	Ala	Gln	Thr	Gly	His	Val	Ser	His	Ser	Ser	Gln	Lys								
340																345				350			
Gln	Cys	His	Lys	Pro	Gln	Gln	Gln	Ala	Pro	Ala	Met	Lys	Thr	Asn	Ser								
355																360				365			
His	Val	Lys	Glu	Glu	Leu	Glu	His	Pro	Gly	Val	Glu	His	Phe	Lys	Glu								
370																375				380			
Glu	Asp	Lys	Leu	Lys	Leu	Lys	Lys	Pro	Glu	Lys	Asn	Leu	Gln	Pro	Arg								
385																390				395			
Gln	Arg	Arg	Ser	Ser	Lys	Ser	Phe	Ser	Leu	Asp	Glu	Pro	Pro	Leu	Phe								
405																410				415			
Ile	Pro	Asp	Asn	Ile	Ala	Thr	Ile	Arg	Arg	Glu	Gly	Ser	Asp	His	Ser								
420																425				430			
Ser	Ser	Phe	Glu	Ser	Lys	Tyr	Met	Trp	Thr	Pro	Ser	Lys	Gln	Cys	Gly								
435																440				445			
Phe	Cys	Lys	Lys	Pro	His	Gly	Asn	Arg	Phe	Met	Val	Gly	Cys	Gly	Arg								
450																455				460			
Cys	Asp	Asp	Trp	Phe	His	Gly	Asp	Cys	Val	Gly	Leu	Ser	Leu	Ser	Gln								
465																470				475			
Ala	Gln	Gln	Met	Gly	Glu	Glu	Asp	Lys	Glu	Tyr	Val	Cys	Val	Lys	Cys								
485																490				495			
Cys	Ala	Glu	Glu	Asp	Lys	Lys	Thr	Glu	Ile	Leu	Asp	Pro	Asp	Thr	Leu								
500																505				510			
Glu	Asn	Gln	Ala	Thr	Val	Glu	Phe	His	Ser	Gly	Asp	Lys	Thr	Met	Glu								
515																520				525			
Cys	Glu	Lys	Leu	Gly	Leu	Ser	Lys	His	Thr	Thr	Asn	Asp	Arg	Thr	Lys								
530																535				540			
Tyr	Ile	Asp	Asp	Thr	Val	Lys	His	Lys	Val	Lys	Ile	Leu	Lys	Arg	Glu								
545																550				555			
Ser	Gly	Glu	Gly	Arg	Asn	Ser	Ser	Asp	Cys	Arg	Asp	Asn	Glu	Ile	Lys								
565																570				575			
Lys	Trp	Gln	Leu	Ala	Pro	Leu	Arg	Lys	Met	Gly	Gln	Pro	Val	Leu	Pro								
580																585				590			
Arg	Arg	Ser	Ser	Glu	Glu	Lys	Ser	Glu	Lys	Ile	Pro	Lys	Glu	Ser	Thr								
595																600				605			
Thr	Val	Thr	Cys	Thr	Gly	Glu	Lys	Ala	Ser	Lys	Pro	Gly	Thr	His	Glu								
610																615				620			
Lys	Gln	Glu	Met	Lys	Lys	Lys	Lys	Val	Glu	Lys	Gly	Val	Leu	Asn	Val								
625																630				635			
His	Pro	Ala	Ala	Ser	Ala	Ser	Lys	Pro	Ser	Ala	Asp	Gln	Ile	Arg	Gln								
645																650				655			
Ser	Val	Arg	His	Ser	Leu	Lys	Asp	Ile	Leu	Met	Lys	Arg	Leu	Thr	Asp								
660																665				670			
Ser	Asn	Leu	Lys	Val	Pro	Glu	Glu	Lys	Ala	Ala	Lys	Val	Ala	Thr	Lys								

675	680	685
Ile Glu Lys Glu Leu Phe Ser Phe Phe Arg Asp Thr Asp Ala Lys Tyr		
690	695	700
Lys Asn Lys Tyr Arg Ser Leu Met Phe Asn Leu Lys Asp Pro Lys Asn		
705	710	715
Asn Ile Leu Phe Lys Lys Val Leu Lys Gly Glu Val Thr Pro Asp His		
725	730	735
Leu Ile Arg Met Ser Pro Glu Glu Leu Ala Ser Lys Glu Leu Ala Ala		
740	745	750
Trp Arg Arg Arg Glu Asn Arg His Thr Ile Glu Met Ile Glu Lys Glu		
755	760	765
Gln Arg Glu Val Glu Arg Arg Pro Ile Thr Lys Ile Thr His Lys Gly		
770	775	780
Glu Ile Glu Ile Glu Ser Asp Ala Pro Met Lys Glu Gln Glu Ala Ala		
785	790	795
Met Glu Ile Gln Glu Pro Ala Ala Asn Lys Ser Leu Glu Lys Pro Glu		
805	810	815
Gly Ser Glu Lys Arg Lys Glu Glu Val Asp Ser Met Ser Lys Asp Thr		
820	825	830
Thr Ser Gln His Arg Gln His Leu Phe Asp Leu Asn Cys Lys Ile Cys		
835	840	845
Ile Gly Arg Met Ala Pro Pro Val Asp Asp Leu Ser Pro Lys Lys Val		
850	855	860
Lys Val Val Val Gly Val Ala Arg Lys His Ser Asp Asn Glu Ala Glu		
865	870	875
Ser Ile Ala Asp Ala Leu Ser Ser Thr Ser Asn Ile Leu Ala Ser Glu		
885	890	895
Phe Phe Glu Glu Glu Lys Gln Glu Ser Pro Lys Ser Thr Phe Ser Pro		
900	905	910
Ala Pro Arg Pro Glu Met Pro Gly Thr Val Glu Val Glu Ser Thr Phe		
915	920	925
Leu Ala Arg Leu Asn Phe Ile Trp Lys Gly Phe Ile Asn Met Pro Ser		
930	935	940
Val Ala Lys Phe Val Thr Lys Ala Tyr Pro Val Ser Gly Ser Pro Glu		
945	950	955
Tyr Leu Thr Glu Asp Leu Pro Asp Ser Ile Gln Val Gly Gly Arg Ile		
965	970	975
Ser Pro Gln Thr Val Trp Asp Tyr Val Glu Lys Ile Lys Ala Ser Gly		
980	985	990
Thr Lys Glu Ile Cys Val Val Arg Phe Thr Pro Val Thr Glu Glu Asp		
995	1000	1005
Gln Ile Ser Tyr Thr Leu Leu Phe Ala Tyr Phe Ser Ser Arg Lys Arg		
1010	1015	1020
Tyr Gly Val Ala Ala Asn Asn Met Lys Gln Val Lys Asp Met Tyr Leu		
1025	1030	1035
Ile Pro Leu Gly Ala Thr Asp Lys Ile Pro His Pro Leu Val Pro Phe		
1045	1050	1055
Asp Gly Pro Gly Leu Glu Leu His Arg Pro Asn Leu Leu Leu Gly Leu		
1060	1065	1070
Ile Ile Arg Gln Lys Leu Lys Arg Gln His Ser Ala Cys Ala Ser Thr		
1075	1080	1085
Ser His Ile Ala Glu Thr Pro Glu Ser Ala Pro Pro Ile Ala Leu Pro		
1090	1095	1100
Pro Asp Lys Lys Ser Lys Ile Glu Val Ser Thr Glu Glu Ala Pro Glu		
1105	1110	1115
Glu Glu Asn Asp Phe Phe Asn Ser Phe Thr Thr Val Leu His Lys Gln		
1125	1130	1135
Arg Asn Lys Pro Gln Gln Asn Leu Gln Glu Asp Leu Pro Thr Ala Val		
1140	1145	1150
Glu Pro Leu Met Glu Val Thr Lys Gln Glu Pro Pro Lys Pro Leu Arg		
1155	1160	1165
Phe Leu Pro Gly Val Leu Ile Gly Trp Glu Asn Gln Pro Thr Thr Leu		
1170	1175	1180
Glu Leu Ala Asn Lys Pro Leu Pro Val Asp Asp Ile Leu Gln Ser Leu		

1185 1190 1195 1200
Leu Gly Thr Thr Gly Gln Val Tyr Asp Gln Ala Gln Ser Val Met Glu
 1205 1210 1215
Gln Asn Thr Val Lys Glu Ile Pro Phe Leu Asn Glu Gln Thr Asn Ser
 1220 1225 1230
Lys Ile Glu Lys Thr Asp Asn Val Glu Val Thr Asp Gly Glu Asn Lys
 1235 1240 1245
Glu Ile Lys Val Lys Val Asp Asn Ile Ser Glu Ser Thr Asp Lys Ser
 1250 1255 1260
Ala Glu Ile Glu Thr Ser Val Val Gly Ser Ser Ser Ile Ser Ala Gly
1265 1270 1275 1280
Ser Leu Thr Ser Leu Ser Leu Arg Gly Lys Pro Pro Asp Val Ser Thr
 1285 1290 1295
Glu Ala Phe Leu Thr Asn Leu Ser Ile Gln Ser Lys Gln Glu Glu Thr
 1300 1305 1310
Val Glu Ser Lys Glu Lys Thr Leu Lys Arg Gln Leu Gln Glu Asp Gln
 1315 1320 1325
Glu Asn Asn Leu Gln Asp Asn Gln Thr Ser Asn Ser Ser Pro Cys Arg
 1330 1335 1340
Ser Asn Val Gly Lys Gly Asn Ile Asp Gly Asn Val Ser Cys Ser Glu
1345 1350 1355 1360
Asn Leu Val Ala Asn Thr Ala Arg Ser Pro Gln Phe Ile Asn Leu Lys
 1365 1370 1375
Arg Asp Pro Arg Gln Ala Ala Gly Arg Ser Gln Pro Val Thr Thr Ser
 1380 1385 1390
Glu Ser Lys Asp Gly Asp Ser Cys Arg Asn Gly Glu Lys His Met Leu
 1395 1400 1405
Pro Gly Leu Ser His Asn Lys Glu His Leu Thr Glu Gln Ile Asn Val
 1410 1415 1420
Glu Glu Lys Leu Cys Ser Ala Glu Lys Asn Ser Cys Val Gln Gln Ser
1425 1430 1435 1440
Asp Asn Leu Lys Val Ala Gln Asn Ser Pro Ser Val Glu Asn Ile Gln
 1445 1450 1455
Thr Ser Gln Ala Glu Gln Ala Lys Pro Leu Gln Glu Asp Ile Leu Met
 1460 1465 1470
Gln Asn Ile Glu Thr Val His Pro Phe Arg Arg Gly Ser Ala Val Ala
 1475 1480 1485
Thr Ser His Phe Glu Val Gly Asn Thr Cys Pro Ser Glu Phe Pro Ser
 1490 1495 1500
Lys Ser Ile Thr Phe Thr Ser Arg Ser Thr Ser Pro Arg Thr Ser Thr
1505 1510 1515 1520
Asn Phe Ser Pro Met Arg Pro Gln Gln Pro Asn Leu Gln His Leu Lys
 1525 1530 1535
Ser Ser Pro Pro Gly Phe Pro Phe Pro Gly Pro Pro Asn Phe Pro Pro
 1540 1545 1550
Gln Ser Met Phe Gly Phe Pro Pro His Leu Pro Pro Pro Leu Leu Pro
 1555 1560 1565
Pro Pro Gly Phe Gly Phe Ala Gln Asn Pro Met Val Pro Trp Pro Pro
 1570 1575 1580
Val Val His Leu Pro Gly Gln Pro Gln Arg Met Met Gly Pro Leu Ser
1585 1590 1595 1600
Gln Ala Ser Arg Tyr Ile Gly Pro Gln Asn Phe Tyr Gln Val Lys Asp
 1605 1610 1615
Ile Arg Arg Pro Glu Arg Arg His Ser Asp Pro Trp Gly Arg Gln Asp
 1620 1625 1630
Gln Gln Gln Leu Asp Arg Pro Phe Asn Arg Gly Lys Gly Asp Arg Gln
 1635 1640 1645
Arg Phe Tyr Ser Asp Ser His His Leu Lys Arg Glu Arg His Glu Lys
 1650 1655 1660
Glu Trp Glu Gln Glu Ser Glu Arg His Arg Arg Arg Asp Arg Ser Gln
1665 1670 1675 1680
Asp Lys Asp Arg Asp Arg Lys Ser Arg Glu Glu Gly His Lys Asp Lys
 1685 1690 1695
Glu Arg Ala Arg Leu Ser His Gly Asp Arg Gly Thr Asp Gly Lys Ala

	1700		1705		1710										
Ser	Arg	Asp	Ser	Arg	Asn	Val	Asp	Lys	Lys	Pro	Asp	Lys	Pro	Lys	Ser
	1715				1720							1725			
Glu	Asp	Tyr	Glu	Lys	Asp	Lys	Glu	Arg	Glu	Lys	Ser	Lys	His	Arg	Glu
	1730				1735							1740			
Gly	Glu	Lys	Asp	Arg	Asp	Arg	Tyr	His	Lys	Asp	Arg	Asp	His	Thr	Asp
1745				1750						1755					1760
Arg	Thr	Lys	Ser	Lys	Arg										
				1765	1766										

<210> 3539

<211> 538

<212> PRT

<213> Homo sapiens

<400> 3539

Gly	Ser	Trp	Thr	Val	Glu	Leu	Ser	Leu	Lys	Pro	Ser	Ala	Ser	Pro	Ser
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Leu	Lys	Trp	Val	Cys	Leu	Pro	Gly	Ala	Ala	Ala	Val	Asn	Lys	His	Arg
			20					25					30		
Ser	Gly	Ala	Gly	Gly	Leu	Ile	Arg	Ser	Leu	Ile	Gln	Cys	Thr	Trp	Ala
		35					40					45			
Pro	Ala	Gly	Pro	Ala	Arg	Arg	Gly	Gly	Arg	Gly	Ile	Glu	Asp	Phe	Pro
	50					55					60				
Tyr	Leu	Phe	Phe	Gln	Leu	Thr	His	Cys	Gln	Gln	Arg	Ile	Cys	Ser	Val
65				70					75						80
Thr	Gln	Ala	Gly	Val	Gln	Trp	Cys	Asp	His	Ser	Ser	Leu	Gln	Pro	Gln
				85					90					95	
Thr	Pro	Gly	Leu	Asn	Gln	Ser	Ser	His	Leu	Ser	Leu	Leu	Ser	Ser	Arg
			100					105					110		
Asp	Tyr	Arg	Met	Leu	Ser	Ser	Phe	Asn	Glu	Trp	Phe	Trp	Gln	Asp	Arg
		115					120					125			
Phe	Trp	Leu	Pro	Pro	Asn	Val	Thr	Trp	Thr	Glu	Leu	Glu	Asp	Arg	Asp
	130					135					140				
Gly	Arg	Val	Tyr	Pro	His	Pro	Gln	Asp	Leu	Leu	Ala	Ala	Leu	Pro	Leu
145					150				155						160
Ala	Leu	Val	Leu	Leu	Ala	Met	Arg	Leu	Ala	Phe	Glu	Arg	Phe	Ile	Gly
				165					170					175	
Leu	Pro	Leu	Ser	Arg	Trp	Leu	Gly	Val	Arg	Asp	Gln	Thr	Arg	Arg	Gln
		180						185						190	
Val	Lys	Pro	Asn	Ala	Thr	Leu	Glu	Lys	His	Phe	Leu	Thr	Glu	Gly	His
	195						200					205			
Arg	Pro	Lys	Glu	Pro	Gln	Leu	Ser	Leu	Leu	Ala	Ala	Gln	Cys	Gly	Leu
	210					215					220				
Thr	Leu	Gln	Gln	Thr	Gln	Arg	Trp	Phe	Arg	Arg	Arg	Arg	Asn	Gln	Asp
225					230				235						240
Arg	Pro	Gln	Leu	Thr	Lys	Lys	Phe	Cys	Glu	Ala	Ser	Trp	Arg	Phe	Leu
				245					250					255	
Phe	Tyr	Leu	Ser	Ser	Phe	Val	Gly	Gly	Leu	Ser	Val	Leu	Tyr	His	Glu
		260					265						270		
Ser	Trp	Leu	Trp	Ala	Pro	Val	Met	Cys	Trp	Asp	Arg	Tyr	Pro	Asn	Gln
	275						280					285			
Leu	Thr	Leu	Ser	Cys	Pro	Ala	Ala	Asp	Ser	Glu	Ala	Ser	Leu	Tyr	Trp
	290					295					300				
Trp	Tyr	Leu	Leu	Glu	Leu	Gly	Phe	Tyr	Leu	Ser	Leu	Leu	Ile	Arg	Leu
305					310				315						320
Pro	Phe	Asp	Val	Lys	Arg	Lys	Gly	Gly	Gly	Pro	Ser	Ser	Ile	Lys	Pro
				325					330					335	
Arg	Pro	His	Tyr	Asp	Pro	Pro	Ser	Thr	Ala	Asp	Phe	Lys	Glu	Gln	Val
		340						345					350		
Ile	His	His	Phe	Val	Ala	Val	Ile	Leu	Met	Thr	Phe	Ser	Tyr	Ser	Ala

355	360	365
Asn Leu Leu Arg Ile Gly Ser Leu Val Leu Leu Leu His Asp Ser Ser		
370	375	380
Asp Tyr Leu Leu Glu Ala Cys Lys Met Val Asn Tyr Met Gln Tyr Gln		
385	390	400
Gln Val Cys Asp Ala Leu Phe Leu Ile Phe Ser Phe Val Phe Phe Tyr		
405	410	415
Thr Arg Leu Val Leu Phe Pro Thr Gln Ile Leu Tyr Thr Thr Tyr Tyr		
420	425	430
Glu Ser Ile Ser Asn Arg Gly Pro Phe Phe Gly Tyr Tyr Phe Phe Asn		
435	440	445
Gly Leu Leu Met Leu Leu Gln Leu Leu His Val Phe Trp Ser Cys Leu		
450	455	460
Ile Leu Arg Met Leu Tyr Ser Phe Met Lys Lys Gly Gln Met Glu Lys		
465	470	475
Asp Ile Arg Ser Asp Val Glu Glu Ser Asp Ser Ser Glu Glu Ala Ala		
485	490	495
Ala Ala Gln Glu Pro Leu Gln Leu Lys Asn Gly Thr Ala Gly Gly Pro		
500	505	510
Arg Pro Ala Pro Thr Asp Gly Pro Arg Ser Arg Val Ala Gly Arg Leu		
515	520	525
Thr Asn Arg His Thr Thr Ala Thr		
530	535	536

<210> 3540
 <211> 378
 <212> PRT
 <213> Homo sapiens

<400> 3540
Ser Pro Ala Gly Tyr Cys His Ser Gly Leu Leu Pro Gly Cys Ser Arg
1 5 10 15
Ser Ala Cys Ala Asp Leu Ala Lys His Gln Glu Leu Pro Gly Lys Lys
20 25 30
Leu Leu Ser Glu Lys Lys Leu Lys Arg Tyr Phe Val Asp Tyr Arg Arg
35 40 45
Val Leu Val Cys Gly Gly Asn Gly Gly Ala Gly Ala Ser Cys Phe His
50 55 60
Ser Glu Pro Arg Lys Glu Phe Gly Gly Pro Asp Gly Gly Asp Gly Gly
65 70 75 80
Asn Gly Gly His Val Ile Leu Arg Val Asp Gln Gln Val Lys Ser Leu
85 90 95
Ser Ser Val Leu Ser Arg Tyr Gln Gly Phe Ser Gly Glu Asp Gly Gly
100 105 110
Ser Lys Asn Cys Phe Gly Arg Ser Gly Ala Val Leu Tyr Ile Arg Val
115 120 125
Pro Val Gly Thr Leu Val Lys Glu Gly Gly Arg Val Val Ala Asp Leu
130 135 140
Ser Cys Val Gly Asp Glu Tyr Ile Ala Ala Leu Gly Gly Ala Gly Gly
145 150 155 160
Lys Gly Asn Arg Phe Phe Leu Ala Asn Asn Asn Arg Ala Pro Val Thr
165 170 175
Cys Thr Pro Gly Gln Pro Gly Gln Gln Arg Val Leu His Leu Glu Leu
180 185 190
Lys Thr Val Ala His Ala Gly Met Val Gly Phe Pro Asn Ala Gly Lys
195 200 205
Ser Ser Leu Leu Arg Ala Ile Ser Asn Ala Arg Pro Ala Val Ala Ser
210 215 220
Tyr Pro Phe Thr Thr Leu Lys Pro His Val Gly Ile Val His Tyr Glu
225 230 235 240
Gly His Leu Gln Ile Ala Val Ala Asp Ile Pro Gly Ile Ile Arg Gly

				245				250					255				
Ala	His	Gln	Asn	Arg	Gly	Leu	Gly	Ser	Ala	Phe	Leu	Arg	His	Ile	Glu		
			260					265					270				
Arg	Cys	Arg	Phe	Leu	Leu	Phe	Val	Val	Asp	Leu	Ser	Gln	Pro	Glu	Pro		
		275					280					285					
Trp	Thr	Gln	Val	Asp	Asp	Leu	Lys	Tyr	Glu	Leu	Glu	Met	Tyr	Glu	Lys		
	290					295					300						
Gly	Leu	Ser	Ala	Arg	Pro	His	Ala	Ile	Val	Ala	Asn	Lys	Ile	Asp	Leu		
305					310					315					320		
Pro	Glu	Ala	Gln	Ala	Asn	Leu	Ser	Gln	Leu	Arg	Asp	His	Leu	Gly	Gln		
			325					330					335				
Glu	Val	Ile	Val	Leu	Ser	Ala	Leu	Thr	Gly	Glu	Asn	Leu	Glu	Gln	Leu		
			340					345					350				
Leu	Leu	His	Leu	Lys	Val	Leu	Tyr	Asp	Ala	Tyr	Ala	Glu	Ala	Glu	Leu		
		355				360						365					
Gly	Gln	Gly	Arg	Gln	Pro	Leu	Arg	Trp									
	370					375		377									

<210> 3541

<211> 2669

<212> PRT

<213> Homo sapiens

<400> 3541

Asp	Thr	Gln	Val	Ser	Glu	Thr	Leu	Lys	Arg	Phe	Ala	Gly	Lys	Val	Thr		
1				5				10						15			
Thr	Ala	Ser	Val	Lys	Glu	Arg	Arg	Glu	Ile	Leu	Ser	Glu	Leu	Gly	Lys		
			20					25					30				
Cys	Val	Ala	Gly	Lys	Asp	Leu	Pro	Glu	Gly	Ala	Val	Lys	Gly	Leu	Cys		
		35				40						45					
Lys	Leu	Phe	Cys	Leu	Thr	Leu	His	Arg	Tyr	Arg	Asp	Ala	Ala	Ser	Arg		
	50					55				60							
Arg	Ala	Leu	Gln	Ala	Ala	Ile	Gln	Gln	Leu	Ala	Glu	Ala	Gln	Pro	Glu		
65				70						75				80			
Ala	Thr	Ala	Lys	Asn	Leu	Leu	His	Ser	Leu	Gln	Ser	Ser	Gly	Ile	Gly		
			85					90						95			
Ser	Lys	Ala	Gly	Val	Pro	Ser	Lys	Ser	Ser	Gly	Ser	Ala	Ala	Leu	Leu		
			100					105						110			
Ala	Leu	Thr	Trp	Thr	Cys	Leu	Leu	Val	Arg	Ile	Val	Phe	Pro	Ser	Arg		
	115					120						125					
Ala	Lys	Arg	Gln	Gly	Asp	Ile	Trp	Asn	Lys	Leu	Val	Glu	Val	Gln	Cys		
	130					135						140					
Leu	Leu	Leu	Leu	Glu	Val	Leu	Gly	Gly	Ser	His	Lys	His	Ala	Val	Asp		
145					150					155					160		
Gly	Ala	Val	Lys	Lys	Leu	Thr	Lys	Leu	Trp	Lys	Glu	Asn	Pro	Gly	Leu		
			165					170						175			
Val	Glu	Gln	Tyr	Leu	Ser	Ala	Ile	Leu	Ser	Leu	Glu	Pro	Asn	Gln	Asn		
			180					185						190			
Tyr	Ala	Gly	Met	Leu	Gly	Leu	Leu	Val	Gln	Phe	Cys	Thr	Ser	His	Lys		
	195					200						205					
Glu	Met	Asp	Val	Val	Ser	Gln	His	Lys	Ser	Ala	Leu	Leu	Asp	Phe	Tyr		
	210					215						220					
Met	Lys	Asn	Ile	Leu	Met	Ser	Lys	Val	Lys	Pro	Pro	Lys	Tyr	Leu	Leu		
225					230					235					240		
Asp	Ser	Cys	Ala	Pro	Leu	Leu	Arg	Tyr	Leu	Ser	His	Ser	Glu	Phe	Lys		
			245					250						255			
Asp	Leu	Ile	Leu	Pro	Thr	Ile	Gln	Lys	Ser	Leu	Leu	Arg	Ser	Pro	Glu		
		260						265						270			
Asn	Val	Ile	Glu	Thr	Ile	Ser	Ser	Leu	Leu	Ala	Ser	Val	Thr	Leu	Asp		
	275					280						285					
Leu	Ser	Gln	Tyr	Ala	Met	Asp	Ile	Val	Lys	Gly	Leu	Ala	Gly	His	Leu		

	290					295					300				
Lys	Ser	Asn	Ser	Pro	Arg	Leu	Met	Asp	Glu	Ala	Val	Leu	Ala	Leu	Arg
305					310					315					320
Asn	Leu	Ala	Arg	Gln	Cys	Ser	Asp	Ser	Ser	Ala	Met	Glu	Ser	Leu	Thr
				325					330						335
Lys	His	Leu	Phe	Ala	Ile	Leu	Gly	Gly	Ser	Glu	Gly	Lys	Leu	Thr	Val
			340					345							350
Val	Ala	Gln	Lys	Met	Ser	Val	Leu	Ser	Gly	Ile	Gly	Ser	Val	Ser	His
		355					360					365			
His	Val	Val	Ser	Gly	Pro	Ser	Ser	Gln	Val	Leu	Asn	Gly	Ile	Val	Ala
	370					375					380				
Glu	Leu	Phe	Ile	Pro	Phe	Leu	Gln	Gln	Glu	Val	His	Glu	Gly	Thr	Leu
385					390						395				400
Val	His	Ala	Val	Ser	Val	Leu	Ala	Leu	Trp	Cys	Asn	Arg	Phe	Thr	Met
				405					410						415
Glu	Val	Pro	Lys	Lys	Leu	Thr	Glu	Trp	Phe	Lys	Lys	Ala	Phe	Ser	Leu
			420					425					430		
Lys	Thr	Ser	Thr	Ser	Ala	Val	Arg	His	Ala	Tyr	Leu	Gln	Cys	Met	Leu
		435					440					445			
Ala	Ser	Tyr	Arg	Gly	Asp	Thr	Leu	Leu	Gln	Ala	Leu	Asp	Leu	Leu	Pro
	450					455					460				
Leu	Leu	Ile	Gln	Thr	Val	Glu	Lys	Ala	Ala	Ser	Gln	Ser	Thr	Gln	Val
465					470					475					480
Pro	Thr	Ile	Thr	Glu	Gly	Val	Ala	Ala	Ala	Leu	Leu	Leu	Leu	Lys	Leu
				485					490						495
Ser	Val	Ala	Asp	Ser	Gln	Ala	Glu	Ala	Lys	Leu	Ser	Ser	Phe	Trp	Gln
			500					505					510		
Leu	Ile	Val	Asp	Glu	Lys	Lys	Gln	Val	Phe	Thr	Ser	Glu	Lys	Phe	Leu
		515					520					525			
Val	Met	Ala	Ser	Glu	Asp	Ala	Leu	Cys	Thr	Val	Leu	His	Leu	Thr	Glu
	530					535					540				
Arg	Leu	Phe	Leu	Asp	His	Pro	His	Arg	Leu	Thr	Gly	Asn	Lys	Val	Gln
545					550					555					560
Gln	Tyr	His	Arg	Ala	Leu	Val	Ala	Val	Leu	Leu	Ser	Arg	Thr	Trp	His
				565					570					575	
Val	Arg	Arg	Gln	Ala	Gln	Gln	Thr	Val	Arg	Lys	Leu	Leu	Ser	Ser	Leu
			580					585						590	
Gly	Gly	Phe	Lys	Leu	Ala	His	Gly	Leu	Leu	Glu	Glu	Leu	Lys	Thr	Val
		595					600					605			
Leu	Ser	Ser	His	Lys	Val	Leu	Pro	Leu	Glu	Ala	Leu	Val	Thr	Asp	Ala
	610					615					620				
Gly	Glu	Val	Thr	Glu	Ala	Gly	Lys	Ala	Tyr	Val	Pro	Pro	Arg	Val	Leu
625					630					635					640
Gln	Glu	Ala	Leu	Cys	Val	Ile	Ser	Gly	Val	Pro	Gly	Leu	Lys	Gly	Asp
				645					650					655	
Val	Thr	Asp	Thr	Glu	Gln	Leu	Ala	Gln	Glu	Met	Leu	Ile	Ile	Ser	His
			660					665						670	
His	Pro	Ser	Leu	Val	Ala	Val	Gln	Ser	Gly	Leu	Trp	Pro	Ala	Leu	Leu
		675					680					685			
Ala	Arg	Met	Lys	Ile	Asp	Pro	Glu	Ala	Phe	Ile	Thr	Arg	His	Leu	Asp
	690					695					700				
Gln	Ile	Ile	Pro	Arg	Met	Thr	Thr	Gln	Ser	Pro	Leu	Asn	Gln	Ser	Ser
705					710					715					720
Met	Asn	Ala	Met	Gly	Ser	Leu	Ser	Val	Leu	Sér	Pro	Asp	Arg	Val	Leu
				725					730					735	
Pro	Gln	Leu	Ile	Ser	Thr	Ile	Thr	Ala	Ser	Val	Gln	Asn	Pro	Ala	Leu
			740					745						750	
Arg	Leu	Val	Thr	Arg	Glu	Glu	Phe	Ala	Ile	Met	Gln	Thr	Pro	Ala	Gly
		755					760					765			
Glu	Leu	Tyr	Asp	Lys	Ser	Ile	Ile	Gln	Ser	Ala	Gln	Gln	Asp	Ser	Ile
	770					775					780				
Lys	Lys	Ala	Asn	Met	Lys	Arg	Glu	Asn	Lys	Ala	Tyr	Ser	Phe	Lys	Glu
785					790					795					800
Gln	Ile	Ile	Glu	Leu	Glu	Leu	Lys	Glu	Glu	Ile	Lys	Lys	Lys	Lys	Gly

				805					810					815			
Ile	Lys	Glu	Glu	Val	Gln	Leu	Thr	Ser	Lys	Gln	Lys	Glu	Met	Leu	Gln		
			820					825					830				
Ala	Gln	Leu	Asp	Arg	Glu	Ala	Gln	Val	Arg	Arg	Arg	Leu	Gln	Glu	Leu		
		835						840					845				
Asp	Gly	Glu	Leu	Glu	Ala	Ala	Leu	Gly	Leu	Leu	Asp	Ile	Ile	Leu	Ala		
	850					855					860						
Lys	Asn	Pro	Ser	Gly	Leu	Thr	Gln	Tyr	Ile	Pro	Val	Leu	Val	Asp	Ser		
865					870					875					880		
Phe	Leu	Pro	Leu	Leu	Lys	Ser	Pro	Leu	Ala	Ala	Pro	Arg	Ile	Lys	Asn		
				885					890					895			
Pro	Phe	Leu	Ser	Leu	Ala	Ala	Cys	Val	Met	Pro	Ser	Arg	Leu	Lys	Ala		
		900						905					910				
Leu	Gly	Thr	Leu	Val	Ser	His	Val	Thr	Leu	Arg	Leu	Leu	Lys	Pro	Glu		
	915						920						925				
Cys	Val	Leu	Asp	Lys	Ser	Trp	Cys	Gln	Glu	Glu	Leu	Ser	Val	Ala	Val		
	930					935						940					
Lys	Arg	Ala	Val	Met	Leu	Leu	His	Thr	His	Thr	Ile	Thr	Ser	Arg	Val		
945					950					955					960		
Gly	Lys	Gly	Glu	Pro	Gly	Ala	Ala	Pro	Leu	Ser	Ala	Pro	Ala	Phe	Ser		
			965					970						975			
Leu	Val	Phe	Pro	Phe	Leu	Lys	Met	Val	Leu	Thr	Glu	Met	Pro	His	His		
		980						985					990				
Ser	Glu	Glu	Glu	Glu	Glu	Trp	Met	Ala	Gln	Ile	Leu	Gln	Ile	Leu	Thr		
	995					1000						1005					
Val	Gln	Ala	Gln	Leu	Arg	Ala	Ser	Pro	Asn	Thr	Pro	Pro	Gly	Arg	Val		
	1010					1015					1020						
Asp	Glu	Asn	Gly	Pro	Glu	Leu	Leu	Pro	Arg	Val	Ala	Met	Leu	Arg	Leu		
1025				1030				1035					1040				
Leu	Thr	Trp	Val	Ile	Gly	Thr	Gly	Ser	Pro	Arg	Leu	Gln	Val	Leu	Ala		
			1045					1050					1055				
Ser	Asp	Thr	Leu	Thr	Thr	Leu	Cys	Ala	Ser	Ser	Ser	Gly	Asp	Asp	Gly		
		1060						1065					1070				
Cys	Ala	Phe	Ala	Glu	Gln	Glu	Glu	Val	Asp	Val	Leu	Leu	Cys	Ala	Leu		
	1075					1080						1085					
Gln	Ser	Pro	Cys	Ala	Ser	Val	Arg	Glu	Thr	Val	Leu	Arg	Gly	Leu	Met		
	1090				1095						1100						
Glu	Leu	His	Met	Val	Leu	Pro	Ala	Pro	Asp	Thr	Asp	Glu	Lys	Asn	Gly		
1105				1110					1115					1120			
Leu	Asn	Leu	Leu	Arg	Arg	Leu	Trp	Val	Val	Lys	Phe	Asp	Lys	Glu	Glu		
			1125					1130					1135				
Glu	Ile	Arg	Lys	Leu	Ala	Glu	Arg	Leu	Trp	Ser	Met	Met	Gly	Leu	Asp		
		1140						1145					1150				
Leu	Gln	Pro	Asp	Leu	Cys	Ser	Leu	Leu	Ile	Asp	Asp	Val	Ile	Tyr	His		
	1155					1160						1165					
Glu	Ala	Ala	Val	Arg	Gln	Ala	Gly	Ala	Glu	Ala	Leu	Ser	Gln	Ala	Val		
	1170					1175					1180						
Ala	Arg	Tyr	Gln	Arg	Gln	Ala	Ala	Glu	Val	Met	Gly	Arg	Leu	Met	Glu		
1185				1190				1195					1200				
Ile	Tyr	Gln	Glu	Lys	Leu	Tyr	Arg	Pro	Pro	Pro	Val	Leu	Asp	Ala	Leu		
			1205					1210					1215				
Gly	Arg	Val	Ile	Ser	Glu	Ser	Pro	Pro	Asp	Gln	Trp	Glu	Ala	Arg	Cys		
		1220						1225					1230				
Gly	Leu	Ala	Leu	Ala	Leu	Asn	Lys	Leu	Ser	Gln	Tyr	Leu	Asp	Ser	Ser		
	1235					1240						1245					
Gln	Val	Lys	Pro	Leu	Phe	Gln	Phe	Phe	Val	Pro	Asp	Ala	Leu	Asn	Asp		
	1250				1255						1260						
Arg	His	Pro	Asp	Val	Arg	Lys	Cys	Met	Leu	Asp	Ala	Ala	Leu	Ala	Thr		
1265				1270					1275					1280			
Leu	Asn	Thr	His	Gly	Lys	Glu	Asn	Val	Asn	Ser	Leu	Leu	Pro	Val	Phe		
			1285					1290					1295				
Glu	Glu	Phe	Leu	Lys	Asn	Ala	Pro	Asn	Asp	Ala	Ser	Tyr	Asp	Ala	Val		
		1300						1305					1310				
Arg	Gln	Ser	Val	Val	Val	Leu	Met	Gly	Ser	Leu	Ala	Lys	His	Leu	Asp		

1315 1320 1325
Lys Ser Asp Pro Lys Val Lys Pro Ile Val Ala Lys Leu Ile Ala Ala
1330 1335 1340
Leu Ser Thr Pro Ser Gln Gln Val Gln Glu Ser Val Ala Ser Cys Leu
1345 1350 1355 1360
Pro Pro Leu Val Pro Ala Ile Lys Glu Asp Ala Gly Gly Met Ile Gln
1365 1370 1375
Arg Leu Met Gln Gln Leu Leu Glu Ser Asp Lys Tyr Ala Glu Arg Lys
1380 1385 1390
Gly Ala Ala Tyr Gly Leu Ala Gly Leu Val Lys Gly Leu Gly Ile Leu
1395 1400 1405
Ser Leu Lys Gln Gln Glu Met Met Ala Ala Leu Thr Asp Ala Ile Gln
1410 1415 1420
Asp Lys Lys Asn Phe Arg Arg Arg Glu Gly Ala Leu Phe Ala Phe Glu
1425 1430 1435 1440
Met Leu Cys Thr Met Leu Gly Lys Leu Phe Glu Pro Tyr Val Val His
1445 1450 1455
Val Leu Pro His Leu Leu Leu Cys Phe Gly Asp Gly Asn Gln Tyr Val
1460 1465 1470
Arg Glu Ala Ala Asp Asp Cys Ala Lys Ala Val Met Ser Asn Leu Ser
1475 1480 1485
Ala His Gly Val Lys Leu Val Leu Pro Ser Leu Leu Ala Ala Leu Glu
1490 1495 1500
Glu Glu Ser Trp Arg Thr Lys Ala Gly Ser Val Glu Leu Leu Gly Ala
1505 1510 1515 1520
Met Ala Tyr Cys Ala Pro Lys Gln Leu Ser Ser Cys Leu Pro Asn Ile
1525 1530 1535
Val Pro Lys Leu Thr Glu Val Leu Thr Asp Ser His Val Lys Val Gln
1540 1545 1550
Lys Ala Gly Gln Gln Ala Leu Arg Gln Ile Gly Ser Val Ile Arg Asn
1555 1560 1565
Pro Glu Ile Leu Ala Ile Ala Pro Val Leu Leu Asp Ala Leu Thr Asp
1570 1575 1580
Pro Ser Arg Lys Thr Gln Lys Cys Leu Gln Thr Leu Leu Asp Thr Lys
1585 1590 1595 1600
Phe Val His Phe Ile Asp Ala Pro Ser Leu Ala Leu Ile Met Pro Ile
1605 1610 1615
Val Gln Arg Ala Phe Gln Asp Arg Ser Thr Asp Thr Arg Lys Met Ala
1620 1625 1630
Ala Gln Ile Ile Gly Asn Met Tyr Ser Leu Thr Asp Gln Lys Asp Leu
1635 1640 1645
Ala Pro Tyr Leu Pro Ser Val Thr Pro Gly Leu Lys Ala Ser Leu Leu
1650 1655 1660
Asp Pro Val Pro Glu Val Arg Thr Val Ser Ala Lys Ala Leu Gly Ala
1665 1670 1675 1680
Met Val Lys Gly Met Gly Glu Ser Cys Phe Glu Asp Leu Leu Pro Trp
1685 1690 1695
Leu Met Glu Thr Leu Thr Tyr Glu Gln Ser Ser Val Asp Arg Ser Gly
1700 1705 1710
Ala Ala Gln Gly Leu Ala Glu Val Met Ala Gly Leu Gly Val Glu Lys
1715 1720 1725
Leu Glu Lys Leu Met Pro Glu Ile Val Ala Thr Ala Ser Lys Val Asp
1730 1735 1740
Ile Ala Pro His Val Arg Asp Gly Tyr Ile Met Met Phe Asn Tyr Leu
1745 1750 1755 1760
Pro Ile Thr Phe Gly Asp Lys Phe Thr Pro Tyr Val Gly Pro Ile Ile
1765 1770 1775
Pro Cys Ile Leu Lys Ala Leu Ala Asp Glu Asn Glu Phe Val Arg Asp
1780 1785 1790
Thr Ala Leu Arg Ala Gly Gln Arg Val Ile Ser Met Tyr Ala Glu Thr
1795 1800 1805
Ala Ile Ala Leu Leu Leu Pro Gln Leu Glu Gln Gly Leu Phe Asp Asp
1810 1815 1820
Leu Trp Arg Ile Arg Phe Ser Ser Val Gln Leu Leu Gly Asp Leu Leu

1825		1830		1835		1840
Phe His Ile Ser Gly Val Thr Gly Lys Met Thr Thr Glu Thr Ala Ser						
	1845		1850		1855	
Glu Asp Asp Asn Phe Gly Thr Ala Gln Ser Asn Lys Ala Ile Ile Thr						
	1860		1865		1870	
Ala Leu Gly Val Glu Arg Arg Asn Arg Val Leu Ala Gly Leu Tyr Met						
	1875		1880		1885	
Gly Arg Ser Asp Thr Gln Leu Val Val Arg Gln Ala Ser Leu His Val						
	1890		1895		1900	
Trp Lys Ile Val Val Ser Asn Thr Pro Arg Thr Leu Arg Glu Ile Leu						
1905		1910		1915		1920
Pro Thr Leu Phe Gly Leu Leu Leu Gly Phe Leu Ala Ser Thr Cys Ala						
	1925		1930		1935	
Asp Lys Arg Thr Ile Ala Ala Arg Thr Leu Gly Asp Leu Val Arg Lys						
	1940		1945		1950	
Leu Gly Glu Lys Ile Leu Pro Glu Ile Ile Pro Ile Leu Glu Glu Gly						
	1955		1960		1965	
Leu Arg Ser Gln Lys Ser Asp Glu Arg Gln Gly Val Cys Ile Gly Leu						
	1970		1975		1980	
Ser Glu Ile Met Lys Ser Thr Ser Arg Asp Ala Val Leu Tyr Phe Ser						
1985		1990		1995		2000
Glu Ser Leu Val Pro Thr Ala Arg Lys Ala Leu Cys Asp Pro Leu Glu						
	2005		2010		2015	
Glu Val Arg Glu Ala Ala Ala Lys Thr Phe Glu Gln Leu His Ser Thr						
	2020		2025		2030	
Ile Gly His Gln Ala Leu Glu Asp Ile Leu Pro Phe Leu Leu Lys Gln						
	2035		2040		2045	
Leu Asp Asp Glu Glu Val Ser Glu Phe Ala Leu Asp Gly Leu Lys Gln						
	2050		2055		2060	
Val Met Ala Ile Lys Ser Arg Val Val Leu Pro Tyr Leu Val Pro Lys						
2065		2070		2075		2080
Leu Thr Thr Pro Pro Val Asn Thr Arg Val Leu Ala Phe Leu Ser Ser						
	2085		2090		2095	
Val Ala Gly Asp Ala Leu Thr Arg His Leu Gly Val Ile Leu Pro Ala						
	2100		2105		2110	
Val Met Leu Ala Leu Lys Glu Lys Leu Gly Thr Pro Asp Glu Gln Leu						
	2115		2120		2125	
Glu Met Ala Asn Cys Gln Ala Val Ile Leu Ser Val Glu Asp Asp Thr						
	2130		2135		2140	
Gly His Arg Ile Ile Ile Glu Asp Leu Leu Glu Ala Thr Arg Ser Pro						
2145		2150		2155		2160
Glu Val Gly Met Arg Gln Ala Ala Ala Ile Ile Leu Asn Ile Tyr Cys						
	2165		2170		2175	
Ser Arg Ser Lys Ala Asp Tyr Thr Ser His Leu Arg Ser Leu Val Ser						
	2180		2185		2190	
Gly Leu Ile Arg Leu Phe Asn Asp Ser Ser Pro Val Val Leu Glu Glu						
	2195		2200		2205	
Ser Trp Asp Ala Leu Asn Ala Ile Thr Lys Lys Leu Asp Ala Gly Asn						
	2210		2215		2220	
Gln Leu Ala Leu Ile Glu Glu Leu His Lys Glu Ile Arg Leu Ile Gly						
2225		2230		2235		2240
Asn Glu Ser Lys Gly Glu His Val Pro Gly Phe Cys Leu Pro Lys Lys						
	2245		2250		2255	
Gly Val Thr Ser Ile Leu Pro Val Leu Arg Glu Gly Val Leu Thr Gly						
	2260		2265		2270	
Ser Pro Glu Gln Lys Glu Glu Ala Ala Lys Ala Leu Gly Leu Val Ile						
	2275		2280		2285	
Arg Leu Thr Ser Ala Asp Ala Leu Arg Pro Ser Val Val Ser Ile Thr						
	2290		2295		2300	
Gly Pro Leu Ile Arg Ile Leu Gly Asp Arg Phe Ser Trp Asn Val Lys						
2305		2310		2315		2320
Ala Ala Leu Leu Glu Thr Leu Ser Leu Leu Leu Ala Lys Val Gly Ile						
	2325		2330		2335	
Ala Leu Lys Pro Phe Leu Pro Gln Leu Gln Thr Thr Phe Thr Lys Ala						

2340	2345	2350
Leu Gln Asp Ser Asn Arg Gly Val Arg Leu Lys Ala Ala Asp Ala Leu		
2355	2360	2365
Gly Lys Leu Ile Ser Ile His Ile Lys Val Asp Pro Leu Phe Thr Glu		
2370	2375	2380
Leu Leu Asn Gly Ile Arg Ala Met Glu Asp Pro Gly Val Arg Asp Thr		
2385	2390	2395
Met Leu Gln Ala Leu Arg Phe Val Ile Gln Gly Ala Gly Ala Lys Val		
2405	2410	2415
Asp Ala Val Ile Arg Lys Asn Ile Val Ser Leu Leu Leu Ser Met Leu		
2420	2425	2430
Gly His Asp Glu Asp Asn Thr Arg Ile Ser Ser Ala Gly Cys Leu Gly		
2435	2440	2445
Glu Leu Cys Ala Phe Leu Thr Glu Glu Glu Leu Ser Ala Val Leu Gln		
2450	2455	2460
Gln Cys Leu Leu Ala Asp Val Ser Gly Ile Asp Trp Met Val Arg His		
2465	2470	2475
Gly Arg Ser Leu Ala Leu Ser Val Ala Val Asn Val Ala Pro Gly Arg		
2485	2490	2495
Leu Cys Ala Gly Arg Tyr Ser Ser Asp Val Gln Glu Met Ile Leu Ser		
2500	2505	2510
Ser Ala Thr Ala Asp Arg Ile Pro Ile Ala Val Ser Gly Val Arg Gly		
2515	2520	2525
Met Gly Phe Leu Met Arg His His Ile Glu Thr Gly Gly Gly Gln Leu		
2530	2535	2540
Pro Ala Lys Leu Ser Ser Leu Phe Val Lys Cys Leu Gln Asn Pro Ser		
2545	2550	2555
Ser Asp Ile Arg Leu Val Ala Glu Lys Met Ile Trp Trp Ala Asn Lys		
2565	2570	2575
Asp Pro Leu Pro Pro Leu Asp Pro Gln Ala Ile Lys Pro Ile Leu Lys		
2580	2585	2590
Ala Leu Leu Asp Asn Thr Lys Asp Lys Asn Thr Val Val Arg Ala Tyr		
2595	2600	2605
Ser Asp Gln Ala Ile Val Asn Leu Leu Lys Met Arg Gln Gly Glu Glu		
2610	2615	2620
Val Phe Gln Ser Leu Ser Lys Ile Leu Asp Val Ala Ser Leu Glu Val		
2625	2630	2635
Leu Asn Glu Val Asn Arg Arg Ser Leu Lys Lys Leu Ala Ser Gln Ala		
2645	2650	2655
Asp Ser Thr Glu Gln Val Asp Asp Thr Ile Leu Thr		
2660	2665	2668

<210> 3542

<211> 358

<212> PRT

<213> Homo sapiens

<400> 3542

Pro Trp Asn Pro Gln Asp Phe Pro Gly Asn Arg Gly Leu Met Gly Gln		
1	5	10
Lys Gly Glu Ile Gly Pro Pro Gly Gln Gln Gly Lys Lys Gly Ala Pro		
20	25	30
Gly Met Pro Gly Leu Met Gly Ser Asn Gly Ser Pro Gly Gln Pro Gly		
35	40	45
Thr Pro Gly Ser Lys Gly Ser Lys Gly Glu Pro Gly Ile Gln Gly Met		
50	55	60
Pro Gly Ala Ser Gly Leu Lys Gly Glu Pro Gly Ala Thr Gly Ser Pro		
65	70	75
Gly Glu Pro Gly Tyr Met Gly Leu Pro Gly Ile Gln Gly Lys Lys Gly		
85	90	95
Asp Lys Gly Asn Gln Gly Glu Lys Gly Ile Gln Gly Gln Lys Gly Glu		

100	105	110
Asn Gly Arg Gln Gly Ile Pro Gly Gln Gln Gly Ile Gln Gly His His		
115	120	125
Gly Ala Lys Gly Glu Arg Gly Glu Lys Gly Glu Pro Gly Val Arg Gly		
130	135	140
Ala Ile Gly Ser Lys Gly Glu Ser Gly Val Asp Gly Leu Met Gly Pro		
145	150	155
Ala Gly Pro Lys Gly Gln Pro Gly Asp Pro Gly Pro Gln Gly Pro Pro		
165	170	175
Gly Leu Asp Gly Lys Pro Gly Arg Glu Phe Ser Glu Gln Phe Ile Arg		
180	185	190
Gln Val Cys Thr Asp Val Ile Arg Ala Gln Leu Pro Val Leu Leu Gln		
195	200	205
Ser Gly Arg Ile Arg Asn Cys Asp His Cys Leu Ser Gln His Gly Ser		
210	215	220
Pro Gly Ile Pro Gly Pro Pro Gly Pro Ile Gly Pro Glu Gly Pro Arg		
225	230	235
Gly Leu Pro Gly Leu Pro Gly Arg Asp Gly Val Pro Gly Leu Val Gly		
245	250	255
Val Pro Gly Arg Pro Gly Val Arg Gly Leu Lys Gly Leu Pro Gly Arg		
260	265	270
Asn Gly Glu Lys Gly Ser Gln Gly Phe Gly Tyr Pro Gly Glu Gln Gly		
275	280	285
Pro Pro Gly Pro Pro Gly Pro Glu Gly Pro Pro Gly Ile Ser Lys Glu		
290	295	300
Gly Pro Pro Gly Asp Pro Gly Leu Pro Gly Lys Asp Gly Asp His Gly		
305	310	315
Lys Pro Gly Ile Gln Gly Gln Pro Gly Pro Pro Gly Ile Cys Asp Pro		
325	330	335
Ser Leu Cys Phe Ser Val Ile Ala Arg Arg Asp Pro Phe Arg Lys Gly		
340	345	350
Pro Asn Tyr		
355		

<210> 3543
 <211> 154
 <212> PRT
 <213> Homo sapiens

<400> 3543

Pro Ala Arg Ser Leu Glu Lys Met Lys Ala Ser Val Val Leu Ser Leu		
1	5	10
Leu Gly Tyr Leu Val Val Pro Ser Gly Ala Tyr Ile Leu Gly Arg Cys		
20	25	30
Thr Val Ala Lys Lys Leu His Asp Gly Gly Leu Asp Tyr Phe Glu Arg		
35	40	45
Tyr Ser Leu Glu Asn Trp Val Cys Leu Ala Tyr Phe Glu Ser Lys Phe		
50	55	60
Asn Pro Ser Ala Ile Tyr Glu Asn Thr Arg Glu Gly Tyr Thr Gly Phe		
65	70	75
Gly Leu Phe Gln Met Arg Gly Ser Asp Trp Cys Gly Asp His Gly Arg		
85	90	95
Asn Arg Cys His Met Ser Cys Ser Ala Leu Leu Asn Pro Asn Leu Glu		
100	105	110
Lys Thr Ile Lys Cys Ala Lys Thr Ile Val Lys Gly Lys Glu Gly Met		
115	120	125
Gly Ala Trp Pro Thr Trp Ser Arg Tyr Cys Gln Tyr Ser Asp Thr Leu		
130	135	140
Ala Arg Trp Leu Asp Gly Cys Lys Leu		
145	150	153

<210> 3544

<211> 361

<212> PRT

<213> Homo sapiens

<400> 3544

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Ser Cys Arg Leu Ala Ala Gly Arg Leu Ala Gln Trp Leu Leu Arg Ala
 1          5          10          15
Ser Arg Ser Gly Met Leu Arg Ala Gly Trp Leu Arg Gly Ala Ala Ala
 20          25          30
Leu Ala Leu Leu Leu Ala Ala Arg Val Val Ala Ala Phe Glu Pro Ile
 35          40          45
Thr Val Gly Leu Ala Ile Gly Ala Ala Ser Ala Ile Thr Gly Tyr Leu
 50          55          60
Ser Tyr Asn Asp Ile Tyr Cys Arg Phe Ala Glu Cys Cys Arg Glu Glu
 65          70          75          80
Arg Pro Leu Asn Ala Ser Ala Leu Lys Leu Asp Leu Glu Glu Lys Leu
 85          90          95
Phe Gly Gln His Leu Ala Thr Glu Val Ile Phe Lys Ala Leu Thr Gly
100          105          110
Phe Arg Asn Asn Lys Asn Pro Lys Lys Pro Leu Thr Leu Ser Leu His
115          120          125
Gly Trp Ala Gly Thr Gly Lys Asn Phe Val Ser Gln Met Gly Ala Glu
130          135          140
Asn Leu His Pro Lys Gly Leu Lys Ser Asn Phe Val His Leu Phe Val
145          150          155          160
Ser Thr Leu His Phe Pro His Glu Gln Lys Ile Lys Leu Tyr Gln Asp
165          170          175
Gln Leu Gln Lys Trp Ile Arg Gly Asn Val Ser Ala Cys Ala Asn Ser
180          185          190
Val Phe Ile Phe Asp Glu Met Asp Lys Leu His Pro Gly Ile Ile Glu
195          200          205
Ala Ile Lys Pro Phe Leu Asp Tyr Tyr Glu His Val Glu Arg Val Ser
210          215          220
Tyr Arg Lys Ala Ile Phe Ile Phe Leu Ser Asn Ala Gly Gly Asp Leu
225          230          235          240
Ile Thr Lys Thr Ala Leu Asp Phe Trp Arg Ala Gly Arg Lys Arg Glu
245          250          255
Asp Ile Gln Leu Lys Asp Leu Glu Pro Val Leu Ser Val Gly Val Phe
260          265          270
Asn Asn Lys His Ser Gly Leu Trp His Ser Gly Leu Ile Asp Lys Asn
275          280          285
Leu Ile Asp Tyr Phe Ile Pro Phe Leu Pro Leu Glu Tyr Arg His Val
290          295          300
Lys Met Cys Val Arg Ala Glu Met Arg Ala Arg Gly Ser Ala Ile Asp
305          310          315          320
Glu Asp Ile Val Thr Arg Val Ala Glu Glu Met Thr Phe Phe Pro Arg
325          330          335
Asp Glu Lys Ile Tyr Ser Asp Lys Gly Cys Lys Thr Val Gln Ser Arg
340          345          350
Leu Asp Phe His
355 356

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<210> 3545

<211> 89

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(89)

<223> Xaa = any amino acid or nothing

<400> 3545

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Ser Ala Gln Gly Arg Ser Trp Gly Arg Phe Tyr Arg Gln Ile Lys Arg
 1           5           10           15
His Pro Gly Ile Ile Pro Met Ile Gly Leu Ile Cys Leu Gly Met Gly
           20           25           30
Ser Ala Ala Leu Tyr Leu Leu Arg Leu Ala Leu Arg Ser Pro Asp Val
           35           40           45
Trp Xaa Ser Trp Asp Arg Lys Asn Asn Pro Glu Pro Trp Asn Arg Leu
           50           55           60
Ser Pro Asn Asp Gln Tyr Lys Phe Leu Ala Val Ser Thr Asp Tyr Lys
           65           70           75           80
Lys Leu Lys Lys Asp Arg Pro Asp Phe
           85           89

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<210> 3546

<211> 189

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(189)

<223> Xaa = any amino acid or nothing

<400> 3546

```

Ala Leu Ser Thr Glu Thr Arg Thr Pro Asp Met Arg Arg Leu Leu Leu
 1           5           10           15
Val Thr Ser Leu Val Val Val Leu Leu Trp Glu Ala Gly Ala Val Pro
           20           25           30
Ala Pro Lys Val Pro Ile Lys Met Gln Val Lys His Trp Pro Ser Glu
           35           40           45
Gln Asp Pro Glu Lys Ala Trp Gly Ala Arg Val Val Glu Pro Pro Glu
           50           55           60
Lys Asp Asp Gln Leu Val Val Leu Phe Pro Val Gln Lys Pro Lys Leu
           65           70           75           80
Leu Thr Thr Glu Glu Lys Pro Arg Gly Gln Gly Arg Gly Pro Ile Leu
           85           90           95
Pro Gly Thr Lys Ala Trp Met Glu Thr Glu Asp Thr Leu Gly Arg Val
           100          105          110
Leu Ser Pro Glu Pro Asp His Asp Ser Leu Tyr His Pro Pro Pro Glu
           115          120          125
Glu Asp Gln Gly Glu Glu Arg Pro Arg Leu Trp Val Met Pro Asn His
           130          135          140
Gln Val Leu Leu Gly Pro Glu Glu Asp Gln Asp His Ile Tyr His Pro
           145          150          155          160
Gln Xaa Gly Ser Arg Gly His His Cys Pro Arg Pro Val Pro Arg Pro
           165          170          175
Arg Leu Leu Gly Leu Gly Pro Ser Leu Pro Cys Pro Ser
           180          185          189

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<210> 3547

<211> 189

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(189)

<223> Xaa = any amino acid or nothing

<400> 3547

Ala	Leu	Ser	Thr	Glu	Thr	Arg	Thr	Pro	Asp	Met	Arg	Arg	Leu	Leu	Leu
1				5					10					15	
Val	Thr	Ser	Leu	Val	Val	Val	Leu	Leu	Trp	Glu	Ala	Gly	Ala	Val	Pro
			20					25					30		
Ala	Pro	Lys	Val	Pro	Ile	Lys	Met	Gln	Val	Lys	His	Trp	Pro	Ser	Glu
		35					40					45			
Gln	Asp	Pro	Glu	Lys	Ala	Trp	Gly	Ala	Arg	Val	Val	Glu	Pro	Pro	Glu
	50					55					60				
Lys	Asp	Asp	Gln	Leu	Val	Val	Leu	Phe	Pro	Val	Gln	Lys	Pro	Lys	Leu
65					70					75					80
Leu	Thr	Thr	Glu	Glu	Lys	Pro	Arg	Gly	Gln	Gly	Arg	Gly	Pro	Ile	Leu
			85						90					95	
Pro	Gly	Thr	Lys	Ala	Trp	Met	Glu	Thr	Glu	Asp	Thr	Leu	Gly	Arg	Val
			100					105					110		
Leu	Ser	Pro	Glu	Pro	Asp	His	Asp	Ser	Leu	Tyr	His	Pro	Pro	Pro	Glu
		115					120					125			
Glu	Asp	Gln	Gly	Glu	Glu	Arg	Pro	Arg	Leu	Trp	Val	Met	Pro	Asn	His
	130					135					140				
Gln	Val	Leu	Leu	Gly	Pro	Glu	Glu	Asp	Gln	Asp	His	Ile	Tyr	His	Pro
145					150					155					160
Gln	Xaa	Gly	Ser	Arg	Gly	His	His	Cys	Pro	Arg	Pro	Val	Pro	Arg	Pro
				165					170					175	
Arg	Leu	Leu	Gly	Leu	Gly	Pro	Ser	Leu	Pro	Cys	Pro	Ser			
			180					185				189			

<210> 3548

<211> 545

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(545)

<223> Xaa = any amino acid or nothing

<400> 3548

Thr	Trp	Leu	Pro	Ser	Val	Pro	Ala	Glu	Glu	Val	Gln	Gln	Pro	Glu	Met
1				5					10					15	
Ala	Ala	Val	Leu	Asn	Ala	Glu	Arg	Leu	Glu	Val	Ser	Val	Asp	Gly	Leu
			20					25					30		
Thr	Leu	Ser	Pro	Asp	Pro	Glu	Glu	Arg	Pro	Gly	Ala	Glu	Gly	Ala	Pro
		35					40					45			
Leu	Ala	Ala	Ala	Thr	Ala	Ala	Thr	Ala	Leu	Ala	Thr	Trp	Ile	Arg	Ser
	50					55					60				
Arg	Pro	Gly	Arg	Leu	Arg	Gly	Thr	Ala	Arg	Ser	Pro	Gly	Arg	Arg	Ala
65					70					75					80
Ala	Gly	Gly	Ala	Ala	Glu	Glu	Ala	Arg	Arg	Leu	Glu	Gln	Arg	Trp	Gly
			85					90						95	
Phe	Gly	Leu	Glu	Glu	Leu	Tyr	Gly	Leu	Ala	Leu	Arg	Phe	Phe	Lys	Glu
		100						105					110		
Lys	Asp	Gly	Lys	Ala	Phe	His	Pro	Thr	Tyr	Glu	Glu	Lys	Leu	Lys	Leu
	115						120					125			
Val	Ala	Leu	His	Lys	Gln	Val	Leu	Met	Gly	Pro	Tyr	Asn	Pro	Asp	Thr
	130					135					140				
Cys	Pro	Glu	Val	Gly	Phe	Phe	Asp	Val	Leu	Gly	Asn	Asp	Arg	Arg	Arg
145					150					155					160
Glu	Trp	Ala	Ala	Leu	Gly	Asn	Met	Ser	Lys	Glu	Asp	Ala	Met	Val	Glu


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<210> 3549
<211> 585
<212> PRT
<213> Homo sapiens
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5309

35	40	45
Arg Pro Tyr Glu Phe Glu Val Glu Arg Asp Ala Lys Ala Arg Gly Leu		
50	55	60
Glu Gln Phe Ser Ala Thr His Gly His Thr Pro Ile Ile Leu Asn Gly		
65	70	75
Trp His Gly Glu Ser Ala Met Asp Leu Ser Cys Ser Ser Glu Gly Ser		
85	90	95
Pro Gly Ala Thr Ser Pro Phe Pro Val Ser Ala Ser Thr Pro Lys Ile		
100	105	110
Gly Ala Ile Ser Ser Leu Gln Gly Ala Leu Gly Met Asp Leu Ser Gly		
115	120	125
Ile Leu Gln Ala Gly Leu Ile His Pro Val Thr Gly Gln Ile Val Asn		
130	135	140
Gly Ser Leu Arg Arg Asp Asp Ala Ala Thr Arg Arg Arg Gly Arg		
145	150	155
Arg Lys His Val Glu Gly Gly Met Asp Leu Ile Phe Leu Lys Glu Gln		
165	170	175
Thr Leu Gln Ala Gly Ile Leu Glu Val His Glu Asp Pro Gly Gln Ala		
180	185	190
Thr Leu Ser Thr Thr His Pro Glu Gly Pro Gly Pro Ala Thr Ser Ala		
195	200	205
Pro Glu Pro Ala Thr Ala Ala Ser Ser Gln Ala Glu Lys Ser Ile Pro		
210	215	220
Ser Lys Ser Leu Leu Asp Trp Leu Arg Gln Gln Ala Asp Tyr Ser Leu		
225	230	235
Glu Val Pro Gly Phe Gly Ala Asn Phe Ser Asp Lys Pro Lys Gln Arg		
245	250	255
Arg Pro Arg Cys Lys Glu Pro Gly Lys Leu Asp Val Ser Ser Leu Ser		
260	265	270
Gly Glu Glu Arg Val Pro Ala Ile Pro Lys Glu Pro Gly Leu Arg Gly		
275	280	285
Phe Leu Pro Glu Asn Lys Phe Asn His Thr Leu Ala Glu Pro Ile Leu		
290	295	300
Arg Asp Thr Gly Pro Arg Arg Arg Gly Arg Arg Pro Arg Ser Glu Leu		
305	310	315
Leu Lys Ala Pro Ser Ile Val Ala Asp Ser Pro Ser Gly Met Gly Pro		
325	330	335
Leu Phe Met Asn Gly Leu Ile Ala Gly Met Asp Leu Val Gly Leu Gln		
340	345	350
Asn Met Arg Asn Met Pro Gly Ile Pro Leu Thr Gly Leu Val Gly Phe		
355	360	365
Pro Ala Gly Phe Ala Thr Met Pro Thr Gly Glu Glu Val Lys Ser Thr		
370	375	380
Leu Ser Met Leu Pro Met Met Leu Pro Gly Met Ala Ala Val Pro Gln		
385	390	395
Met Phe Gly Val Gly Gly Leu Leu Ser Pro Pro Met Ala Thr Thr Cys		
405	410	415
Thr Ser Thr Ala Pro Ala Ser Leu Ser Ser Thr Thr Lys Ser Gly Thr		
420	425	430
Ala Val Thr Glu Lys Thr Ala Glu Asp Lys Pro Ser Ser His Asp Val		
435	440	445
Lys Thr Asp Thr Leu Ala Glu Asp Lys Pro Gly Pro Gly Pro Phe Ser		
450	455	460
Asp Gln Ser Glu Pro Ala Ile Thr Thr Ser Ser Pro Val Ala Phe Asn		
465	470	475
Pro Phe Leu Ile Pro Gly Val Ser Pro Gly Leu Ile Tyr Pro Ser Met		
485	490	495
Phe Leu Ser Pro Gly Met Gly Met Ala Leu Pro Ala Met Gln Gln Ala		
500	505	510
Arg His Ser Glu Ile Val Gly Leu Glu Ser Gln Lys Arg Lys Lys Lys		
515	520	525
Lys Thr Lys Gly Asp Asn Pro Asn Ser His Pro Glu Pro Ala Pro Ser		
530	535	540
Cys Glu Arg Glu Pro Ser Gly Asp Glu Asn Cys Ala Glu Pro Ser Ala		

545 550 555 560
 Pro Leu Pro Ala Glu Arg Glu His Gly Ala Gln Ala Gly Glu Gly Ala
 565 570 575
 Leu Lys Asp Ser Asn Asn Asp Thr Asn
 580 585

<210> 3550

<211> 82

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(82)

<223> Xaa = any amino acid or nothing

<400> 3550

Gln Leu Asn Leu Asn Lys Ile Ala Thr Ser Gln Lys His Arg Asp Phe
 1 5 10 15
 Val Ala Glu Ser Val Gly Glu Lys Pro Val Gly Ser Leu Ala Gly Ile
 20 25 30
 Gly Glu Val Met Asp Lys Lys Leu Glu Glu Gly Cys Phe Asp Lys Ala
 35 40 45
 Tyr Val Val Leu Gly Gln Phe Leu Val Leu Lys Lys Asp Glu Asp Leu
 50 55 60
 Phe Xaa Glu Trp Leu Arg Asp Thr Gly Gly Ala Arg Thr Arg Gly Ser
 65 70 75 80
 Arg Glu
 82

<210> 3551

<211> 1301

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(1301)

<223> Xaa = any amino acid or nothing

<400> 3551

Gly Asp Leu Leu Glu Val Gly Leu Pro Pro Gly Leu Glu Phe Pro Arg
 1 5 10 15
 Gly Ile Cys Leu Arg Gly Leu Arg Arg Thr Met Ser Leu Asp Phe Gly
 20 25 30
 Ser Val Ala Leu Pro Val Gln Asn Glu Asp Glu Glu Tyr Asp Glu Glu
 35 40 45
 Asp Tyr Glu Arg Glu Lys Glu Leu Gln Gln Leu Leu Thr Asp Leu Pro
 50 55 60
 His Asp Met Leu Asp Asp Asp Leu Ser Ser Pro Glu Leu Gln Tyr Ser
 65 70 75 80
 Asp Cys Ser Glu Asp Gly Thr Asp Gly Gln Pro His His Pro Glu Gln
 85 90 95
 Leu Glu Met Ser Trp Asn Glu Gln Met Leu Pro Lys Ser Gln Ser Val
 100 105 110
 Asn Gly Pro Ser Cys Gln Gly Leu Glu Pro Tyr Asn Lys Val Thr Tyr
 115 120 125
 Lys Pro Tyr Gln Ser Ser Ala Gln Asn Asn Gly Ser Pro Ala Gln Glu
 130 135 140
 Ile Thr Gly Ser Asp Thr Phe Glu Gly Leu Gln Gln Gln Phe Leu Gly

145					150					155				160
Ala	Asn	Glu	Asn	Ser	Ala	Glu	Asn	Met	Gln	Ile	Ile	Gln	Leu	Gln
				165					170					175
Leu	Asn	Lys	Ala	Lys	Glu	Arg	Gln	Leu	Glu	Asn	Leu	Ile	Glu	Lys
			180					185					190	
Asn	Glu	Ser	Glu	Arg	Gln	Ile	Arg	Tyr	Leu	Asn	His	Gln	Leu	Val
		195					200					205		
Ile	Lys	Asp	Glu	Lys	Asp	Gly	Leu	Thr	Leu	Ser	Leu	Arg	Glu	Ser
	210					215				220				
Lys	Leu	Phe	Gln	Asn	Gly	Lys	Glu	Arg	Glu	Ile	Gln	Leu	Glu	Ala
225					230				235					240
Ile	Lys	Ala	Leu	Glu	Thr	Gln	Ile	Gln	Ala	Leu	Lys	Val	Asn	Glu
			245						250					255
Gln	Met	Ile	Lys	Lys	Ser	Arg	Thr	Thr	Glu	Met	Ala	Leu	Glu	Ser
			260					265					270	
Lys	Gln	Gln	Leu	Val	Asp	Leu	His	His	Ser	Glu	Ser	Leu	Gln	Arg
	275						280					285		
Arg	Glu	Gln	His	Glu	Ser	Ile	Val	Met	Gly	Leu	Thr	Lys	Lys	Tyr
	290					295					300			
Glu	Gln	Val	Leu	Ser	Leu	Gln	Lys	Asn	Leu	Asp	Ala	Thr	Val	Thr
305					310				315					320
Leu	Lys	Glu	Gln	Glu	Asp	Ile	Cys	Ser	Arg	Leu	Lys	Asp	His	Val
			325					330						335
Gln	Leu	Glu	Arg	Asn	Gln	Glu	Ala	Ile	Lys	Leu	Glu	Lys	Thr	Glu
			340					345					350	
Ile	Asn	Lys	Leu	Thr	Arg	Ser	Leu	Glu	Glu	Ser	Gln	Lys	Gln	Cys
	355					360					365			
His	Leu	Leu	Gln	Ser	Gly	Ser	Val	Gln	Glu	Val	Ala	Gln	Leu	Gln
	370				375					380				
Gln	Leu	Gln	Gln	Ala	Gln	Lys	Ala	His	Ala	Met	Ser	Ala	Asn	Met
385					390				395					400
Lys	Ala	Leu	Gln	Glu	Glu	Leu	Thr	Glu	Leu	Lys	Asp	Glu	Ile	Ser
			405					410						415
Tyr	Glu	Ser	Ala	Ala	Lys	Leu	Gly	Ile	His	Pro	Ser	Asp	Ser	Glu
			420				425					430		
Glu	Leu	Asn	Ile	Glu	Leu	Thr	Glu	Ser	Tyr	Val	Asp	Leu	Gly	Ile
	435					440					445			
Lys	Val	Asn	Trp	Lys	Lys	Ser	Lys	Val	Thr	Ser	Ile	Val	Gln	Glu
	450				455					460				
Asp	Pro	Asn	Glu	Glu	Leu	Ser	Lys	Asp	Glu	Phe	Ile	Leu	Lys	Leu
465					470				475					480
Ala	Glu	Val	Gln	Arg	Leu	Leu	Gly	Ser	Asn	Ser	Met	Lys	Arg	His
			485					490						495
Val	Ser	Gln	Leu	Gln	Asn	Asp	Leu	Lys	Asp	Cys	His	Lys	Lys	Ile
		500					505					510		
Asp	Leu	His	Gln	Val	Lys	Lys	Asp	Glu	Lys	Ser	Ile	Glu	Val	Glu
	515					520					525			
Lys	Thr	Asp	Thr	Ser	Glu	Lys	Pro	Lys	Asn	Gln	Leu	Trp	Pro	Glu
	530					535				540				
Ser	Thr	Ser	Asp	Val	Val	Arg	Asp	Asp	Ile	Leu	Leu	Leu	Lys	Asn
545					550				555					560
Ile	Gln	Val	Leu	Gln	Gln	Asn	Gln	Glu	Leu	Lys	Glu	Thr	Glu	Gly
			565					570						575
Lys	Leu	Arg	Asn	Thr	Asn	Gln	Asp	Leu	Cys	Asn	Gln	Met	Arg	Gln
			580				585					590		
Val	Gln	Asp	Phe	Asp	His	Asp	Lys	Gln	Glu	Ala	Val	Asp	Arg	Cys
	595						600					605		
Arg	Thr	Tyr	Gln	Gln	His	His	Glu	Ala	Met	Lys	Thr	Gln	Ile	Arg
	610					615					620			
Ser	Leu	Leu	Ala	Lys	His	Ala	Leu	Glu	Lys	Gln	Gln	Leu	Phe	Glu
625					630				635					640
Tyr	Glu	Arg	Thr	His	Leu	Gln	Leu	Arg	Ser	Glu	Leu	Asp	Lys	Leu
			645					650						655
Lys	Glu	Val	Thr	Ala	Val	Gln	Glu	Cys	Tyr	Leu	Glu	Val	Cys	Arg

			660					665				670			
Lys	Asp	Asn	Leu	Glu	Leu	Thr	Leu	Arg	Lys	Thr	Thr	Glu	Lys	Glu	Gln
		675					680					685			
Gln	Thr	Gln	Glu	Lys	Ile	Lys	Glu	Lys	Leu	Ile	Gln	Gln	Leu	Glu	Lys
	690					695					700				
Glu	Trp	Gln	Ser	Lys	Leu	Asp	Gln	Thr	Ile	Lys	Ala	Met	Lys	Lys	Lys
705					710					715					720
Thr	Leu	Asp	Cys	Gly	Ser	Gln	Thr	Asp	Gln	Val	Thr	Thr	Ser	Asp	Val
			725					730						735	
Ile	Ser	Lys	Lys	Glu	Met	Ala	Ile	Met	Ile	Glu	Glu	Gln	Lys	Cys	Thr
		740					745					750			
Ile	Gln	Gln	Asn	Leu	Glu	Gln	Glu	Lys	Asp	Ile	Ala	Ile	Lys	Gly	Ala
	755					760						765			
Met	Lys	Lys	Leu	Glu	Ile	Glu	Leu	Glu	Leu	Lys	His	Cys	Glu	Asn	Ile
770						775					780				
Thr	Lys	Gln	Val	Glu	Ile	Ala	Val	Gln	Asn	Ala	His	Gln	Arg	Trp	Leu
785					790					795					800
Gly	Glu	Leu	Pro	Glu	Leu	Ala	Glu	Tyr	Gln	Ala	Leu	Val	Lys	Ala	Glu
			805					810						815	
Gln	Lys	Lys	Trp	Glu	Glu	Gln	His	Glu	Val	Ser	Val	Asn	Lys	Arg	Ile
		820					825					830			
Ser	Phe	Ala	Val	Ser	Glu	Ala	Lys	Glu	Lys	Trp	Lys	Ser	Glu	Leu	Glu
		835					840					845			
Asn	Met	Arg	Lys	Asn	Ile	Leu	Pro	Gly	Lys	Glu	Leu	Glu	Glu	Lys	Ile
850						855					860				
His	Ser	Leu	Gln	Lys	Glu	Leu	Glu	Leu	Lys	Asn	Glu	Glu	Val	Pro	Val
865					870					875					880
Val	Ile	Arg	Ala	Glu	Leu	Ala	Lys	Ala	Arg	Ser	Glu	Trp	Asn	Lys	Glu
			885					890						895	
Lys	Gln	Glu	Glu	Ile	His	Arg	Ile	Gln	Glu	Gln	Asn	Glu	Gln	Asp	Tyr
		900						905					910		
Arg	Gln	Phe	Leu	Asp	Asp	His	Arg	Asn	Lys	Ile	Asn	Glu	Val	Leu	Ala
		915					920					925			
Ala	Ala	Lys	Glu	Asp	Phe	Met	Lys	Gln	Lys	Thr	Glu	Leu	Leu	Leu	Gln
	930					935					940				
Lys	Glu	Thr	Glu	Leu	Gln	Thr	Cys	Leu	Asp	Gln	Ser	Arg	Arg	Glu	Trp
945					950					955					960
Thr	Met	Gln	Glu	Ala	Lys	Arg	Ile	Gln	Leu	Glu	Ile	Tyr	Gln	Tyr	Glu
			965					970						975	
Glu	Asp	Ile	Leu	Thr	Val	Leu	Gly	Val	Leu	Leu	Ser	Asp	Thr	Gln	Lys
		980					985						990		
Glu	His	Ile	Ser	Asp	Ser	Glu	Asp	Lys	Gln	Leu	Leu	Glu	Ile	Met	Ser
		995				1000						1005			
Thr	Cys	Ser	Ser	Lys	Trp	Met	Ser	Val	Gln	Tyr	Phe	Glu	Lys	Leu	Lys
	1010				1015						1020				
Gly	Cys	Ile	Gln	Lys	Ala	Phe	Gln	Asp	Thr	Leu	Pro	Leu	Leu	Val	Glu
1025				1030					1035						1040
Asn	Ala	Asp	Pro	Glu	Trp	Lys	Lys	Arg	Asn	Met	Ala	Glu	Leu	Ser	Lys
			1045					1050						1055	
Asp	Ser	Ala	Ser	Gln	Gly	Thr	Gly	Gln	Gly	Asp	Pro	Gly	Pro	Ala	Ala
		1060					1065						1070		
Gly	His	His	Ala	Gln	Pro	Leu	Ala	Leu	Gln	Ala	Thr	Glu	Ala	Glu	Ala
	1075					1080				1085					
Asp	Lys	Lys	Lys	Val	Leu	Glu	Ile	Lys	Asp	Leu	Cys	Cys	Gly	His	Cys
	1090				1095					1100					
Phe	Gln	Glu	Leu	Glu	Lys	Ala	Lys	Gln	Glu	Cys	Gln	Asp	Leu	Lys	Gly
1105				1110					1115						1120
Lys	Leu	Glu	Lys	Cys	Cys	Arg	His	Leu	Gln	His	Leu	Glu	Arg	Lys	His
			1125					1130						1135	
Lys	Ala	Val	Val	Glu	Lys	Ile	Gly	Glu	Glu	Asn	Asn	Lys	Val	Val	Glu
		1140					1145					1150			
Glu	Leu	Ile	Glu	Glu	Asn	Asn	Asp	Met	Lys	Asn	Lys	Leu	Glu	Glu	Leu
	1155					1160						1165			
Gln	Thr	Leu	Cys	Lys	Thr	Pro	Pro	Arg	Ser	Leu	Ser	Ala	Gly	Ala	Ile

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      1170      1175      1180
Glu Asn Ala Cys Leu Pro Cys Ser Gly Gly Ala Leu Glu Glu Leu Arg
1185      1190      1195      1200
Gly Gln Tyr Ile Lys Ala Val Lys Lys Ile Lys Cys Asp Met Leu Arg
      1205      1210      1215
Tyr Ile Gln Glu Ser Lys Glu Arg Ala Ala Glu Met Val Lys Ala Glu
      1220      1225      1230
Val Leu Xaa Glu Arg Gln Glu Thr Ala Arg Lys Met Arg Lys Tyr Tyr
      1235      1240      1245
Leu Ile Cys Leu Gln Gln Ile Leu Gln Asp Asp Gly Lys Glu Gly Ala
      1250      1255      1260
Glu Lys Lys Ile Met Asn Ala Ala Ser Lys Leu Ala Thr Met Ala Lys
1265      1270      1275      1280
Leu Leu Glu Thr Pro Ile Ser Ser Lys Ser Gln Ser Lys Thr Thr Gln
      1285      1290      1295
Ser Gly Met Ser Lys
      1300 1301

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<210> 3552
<211> 131
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(131)
<223> Xaa = any amino acid or nothing

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      <400> 3552
Ala Arg Thr Arg Gln Thr Ser Gly Gln Ala Arg Glu Pro Glu Lys Glu
  1          5          10          15
Ser Pro Ala Pro Gly Gly Gly Gly Leu Ala Glu Ile Arg Ser Arg Gln
      20          25          30
Gln Leu Ser Gln Thr Ser Arg Ile Pro Pro Leu Ala Lys Asp Gln Ala
      35          40          45
Val Glu Ala Met Phe Pro Pro Ala Arg Gly Lys Glu Leu Leu Ser Phe
      50          55          60
Glu Asp Val Ala Met Tyr Phe Thr Arg Glu Glu Trp Gly His Leu Asn
      65          70          75          80
Trp Gly Gln Lys Asp Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Arg
      85          90          95
Asn Met Val Leu Leu Val Tyr Phe Gln Phe Asp Ala Ala Ile Pro Leu
      100          105          110
Cys Xaa Thr Ser Leu Ala His Ser Ser Trp Leu Gln Leu Tyr Phe Arg
      115          120          125
Leu Tyr Phe
      130 131

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<210> 3553
<211> 529
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(529)
<223> Xaa = any amino acid or nothing

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      <400> 3553
Pro Gly Val Arg Gly Val Glu Ala Pro Gly Gly Val Ala Pro Gly Arg

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1	5	10	15
Asn Ala Met Arg	Arg Gly Glu Arg Arg	Asp Ala Gly Gly	Pro Arg Pro
20	25	30	
Glu Ser Pro Val	Pro Ala Gly Arg Ala	Ser Leu Glu Glu	Pro Pro Asp
35	40	45	
Gly Pro Ser Ala	Gly Gln Ala Thr Gly	Pro Gly Glu Gly	Arg Arg Ser
50	55	60	
Thr Glu Ser Glu	Val Tyr Asp Asp	Gly Thr Asn Thr	Phe Phe Trp Arg
65	70	75	80
Ala His Thr Leu	Thr Val Leu Phe Ile	Leu Thr Cys Thr	Leu Gly Tyr
85	90	95	
Val Thr Leu Leu	Glu Glu Thr Pro Gln	Asp Thr Ala Tyr	Asn Thr Lys
100	105	110	
Arg Gly Ile Val	Ala Ser Ile Leu	Val Phe Leu Cys	Phe Gly Val Thr
115	120	125	
Gln Ala Lys Asp	Gly Pro Phe Ser	Arg Pro His Pro	Ala Tyr Trp Arg
130	135	140	
Phe Trp Leu Cys	Val Ser Val Val	Tyr Glu Leu Phe	Leu Ile Phe Ile
145	150	155	160
Leu Phe Gln Thr	Val Gln Asp Gly	Arg Gln Phe Leu	Lys Tyr Val Asp
165	170	175	
Pro Lys Leu Gly	Val Pro Leu Pro	Glu Arg Asp Tyr	Gly Gly Asn Cys
180	185	190	
Leu Ile Tyr Asp	Pro Asp Asn Glu	Thr Asp Pro Phe	His Asn Ile Trp
195	200	205	
Asp Lys Leu Asp	Gly Phe Val Pro	Ala His Phe Leu	Gly Trp Tyr Leu
210	215	220	
Lys Thr Leu Met	Ile Arg Asp Trp	Trp Met Cys Met	Ile Ile Ser Val
225	230	235	240
Met Phe Glu Phe	Leu Glu Tyr Ser	Leu Glu His Gln	Leu Pro Asn Phe
245	250	255	
Ser Glu Cys Trp	Trp Asp His Trp	Ile Met Asp Val	Leu Val Cys Asn
260	265	270	
Gly Leu Gly Ile	Tyr Cys Gly Met	Lys Thr Leu Glu	Trp Leu Ser Leu
275	280	285	
Lys Thr Tyr Lys	Trp Gln Gly Leu	Trp Asn Ile Pro	Thr Tyr Lys Gly
290	295	300	
Lys Met Lys Arg	Ile Ala Phe Gln	Phe Thr Pro Tyr	Ser Trp Val Arg
305	310	315	320
Phe Glu Trp Lys	Pro Ala Ser Ser	Leu Arg Arg Trp	Leu Ala Val Cys
325	330	335	
Gly Ile Ile Leu	Val Phe Leu Leu	Ala Glu Leu Asn	Thr Phe Tyr Leu
340	345	350	
Lys Phe Val Leu	Trp Met Pro Pro	Glu His Tyr Leu	Val Leu Leu Arg
355	360	365	
Leu Val Phe Phe	Val Asn Val Gly	Gly Val Ala Met	Arg Glu Ile Tyr
370	375	380	
Asp Phe Met Asp	Asp Pro Lys Pro	His Lys Lys Leu	Gly Pro Gln Ala
385	390	395	400
Trp Leu Val Ala	Ala Ile Thr Ala	Thr Glu Leu Leu	Ile Val Val Lys
405	410	415	
Tyr Asp Pro His	Thr Leu Thr Leu	Ser Leu Pro Phe	Tyr Ile Ser Gln
420	425	430	
Cys Trp Thr Leu	Gly Ser Val Leu	Ala Leu Thr Trp	Thr Val Trp Arg
435	440	445	
Phe Phe Leu Arg	Asp Ile Thr Leu	Arg Tyr Lys Glu	Thr Arg Trp Gln
450	455	460	
Lys Trp Gln Asn	Lys Asp Asp Gln	Gly Ser Thr Val	Gly Asn Gly Asp
465	470	475	480
Gln His Pro Leu	Gly Leu Asp Glu	Asp Leu Leu Gly	Pro Gly Val Ala
485	490	495	
Glu Gly Glu Gly	Ala Pro Thr Pro	Asn Xaa Pro Arg	Gly Pro Ala Pro
500	505	510	
Arg Pro Leu Pro	Ser Ala Pro Arg	Ala Val Cys Gly	Ala Ser Ser Arg

515

520

525

Arg
529

<210> 3554

<211> 701

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(701)

<223> Xaa = any amino acid or nothing

<400> 3554

Phe	Asp	Glu	Phe	Ser	Ala	Leu	Pro	Ser	Pro	Ser	Leu	Gln	Thr	Ser	Trp
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Ser	Phe	Gly	Pro	Met	Ser	Arg	Arg	Ala	Leu	Arg	Arg	Leu	Arg	Gly	Glu
			20					25					30		
Gln	Arg	Gly	Gln	Glu	Pro	Leu	Gly	Pro	Gly	Ala	Leu	His	Phe	Asp	Leu
			35				40					45			
Arg	Asp	Asp	Asp	Asp	Ala	Glu	Glu	Glu	Gly	Pro	Lys	Arg	Glu	Leu	Gly
			50			55					60				
Val	Arg	Arg	Pro	Gly	Gly	Ala	Gly	Lys	Glu	Gly	Val	Arg	Val	Asn	Asn
65					70				75					80	
Arg	Phe	Glu	Leu	Ile	Asn	Ile	Asp	Asp	Leu	Glu	Asp	Asp	Pro	Val	Val
				85				90					95		
Asn	Gly	Glu	Arg	Ser	Gly	Cys	Ala	Leu	Thr	Asp	Ala	Val	Ala	Pro	Gly
			100					105					110		
Asn	Lys	Gly	Arg	Gly	Gln	Arg	Gly	Asn	Thr	Glu	Ser	Lys	Thr	Asp	Gly
			115				120					125			
Asp	Asp	Thr	Glu	Thr	Val	Pro	Ser	Glu	Gln	Ser	His	Ala	Ser	Gly	Lys
			130			135					140				
Leu	Arg	Lys	Lys	Lys	Lys	Lys	Gln	Lys	Asn	Lys	Lys	Ser	Ser	Thr	Gly
145					150					155					160
Glu	Ala	Ser	Glu	Asn	Gly	Leu	Glu	Asp	Ile	Asp	Arg	Ile	Leu	Glu	Arg
				165				170					175		
Ile	Glu	Asp	Ser	Thr	Gly	Leu	Asn	Arg	Pro	Gly	Pro	Ala	Pro	Leu	Ser
			180					185					190		
Ser	Arg	Lys	His	Val	Leu	Tyr	Val	Glu	His	Arg	His	Leu	Asn	Pro	Asp
			195				200					205			
Thr	Glu	Leu	Lys	Arg	Tyr	Phe	Gly	Ala	Arg	Ala	Ile	Leu	Gly	Glu	Gln
			210			215					220				
Arg	Pro	Arg	Gln	Arg	Gln	Arg	Val	Tyr	Pro	Lys	Cys	Thr	Trp	Leu	Thr
225					230					235					240
Thr	Pro	Lys	Ser	Thr	Trp	Pro	Arg	Tyr	Ser	Lys	Pro	Gly	Leu	Ser	Met
				245					250				255		
Arg	Leu	Leu	Glu	Ser	Lys	Lys	Gly	Leu	Ser	Phe	Phe	Ala	Phe	Glu	His
			260					265					270		
Ser	Glu	Glu	Tyr	Gln	Gln	Ala	Gln	His	Lys	Phe	Leu	Val	Ala	Val	Glu
			275				280					285			
Ser	Met	Glu	Pro	Asn	Asn	Ile	Val	Val	Leu	Leu	Gln	Thr	Ser	Pro	Tyr
			290			295					300				
His	Val	Asp	Ser	Leu	Leu	Gln	Leu	Ser	Asp	Ala	Cys	Arg	Phe	Gln	Glu
305					310					315					320
Asp	Gln	Glu	Met	Ala	Arg	Asp	Leu	Val	Glu	Arg	Ala	Leu	Tyr	Ser	Met
				325					330				335		
Glu	Cys	Ala	Phe	His	Pro	Leu	Phe	Ser	Leu	Thr	Ser	Gly	Ala	Cys	Arg
			340					345					350		
Leu	Asp	Tyr	Arg	Arg	Pro	Glu	Asn	Arg	Ser	Phe	Tyr	Leu	Ala	Leu	Tyr
			355				360					365			
Lys	Gln	Met	Ser	Phe	Leu	Glu	Lys	Arg	Gly	Cys	Pro	Arg	Thr	Ala	Leu

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      370      375      380
Glu Tyr Cys Lys Leu Ile Leu Ser Leu Glu Pro Asp Glu Asp Pro Leu
385      390      395      400
Cys Met Leu Leu Leu Ile Asp His Leu Ala Leu Arg Ala Arg Asn Tyr
      405      410      415
Glu Tyr Leu Ile Arg Leu Phe Gln Glu Trp Glu Val Gly Ala Ser Leu
      420      425      430
Ala His Arg Asn Leu Ser Gln Leu Pro Asn Phe Ala Phe Ser Val Pro
      435      440      445
Leu Ala Tyr Phe Leu Leu Ser Gln Gln Thr Asp Leu Pro Glu Cys Glu
      450      455      460
Gln Ser Ser Ala Arg Gln Lys Ala Ser Leu Leu Ile Gln Gln Ala Leu
465      470      475      480
Thr Met Phe Pro Gly Val Leu Leu Pro Leu Leu Glu Ser Cys Ser Val
      485      490      495
Arg Pro Asp Ala Ser Val Ser Ser His Arg Phe Phe Gly Pro Asn Ala
      500      505      510
Glu Ile Ser Gln Pro Pro Ala Leu Ser Gln Leu Val Asn Leu Tyr Leu
      515      520      525
Gly Arg Ser His Phe Leu Trp Lys Glu Pro Ala Thr Met Ser Trp Leu
      530      535      540
Glu Glu Asn Val His Glu Val Leu Gln Ala Val Asp Ala Gly Asp Pro
545      550      555      560
Ala Val Glu Ala Cys Glu Asn Arg Arg Lys Val Leu Tyr Gln Arg Ala
      565      570      575
Pro Arg Asn Ile His Arg His Val Ile Leu Ser Glu Ile Lys Glu Ala
      580      585      590
Val Ala Ala Leu Pro Pro Asp Val Thr Thr Gln Ser Val Met Gly Phe
      595      600      605
Asp Pro Leu Pro Pro Ser Asp Thr Ile Tyr Ser Tyr Val Arg Pro Glu
      610      615      620
Arg Leu Ser Pro Ile Ser His Gly Asn Thr Ile Ala Leu Phe Phe Arg
625      630      635      640
Ser Leu Leu Pro Asn Tyr Thr Met Glu Gly Glu Arg Pro Glu Glu Gly
      645      650      655
Val Ala Gly Gly Leu Asn Arg Asn Gln Gly Leu Asn Arg Leu Met Leu
      660      665      670
Ala Val Arg Asp Met Met Ala Asn Phe His Leu Asn Asp Leu Glu Ala
      675      680      685
Pro His Glu Asp Asp Ala Xaa Gly Glu Gly Glu Trp Asp
690      695      700 701

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<210> 3555

<211> 701

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(701)

<223> Xaa = any amino acid or nothing

<400> 3555

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Phe Asp Glu Phe Ser Ala Leu Pro Ser Pro Ser Leu Gln Thr Ser Trp
 1          5          10          15
Ser Phe Gly Pro Met Ser Arg Arg Ala Leu Arg Arg Leu Arg Gly Glu
      20      25      30
Gln Arg Gly Gln Glu Pro Leu Gly Pro Gly Ala Leu His Phe Asp Leu
      35      40      45
Arg Asp Asp Asp Asp Ala Glu Glu Glu Gly Pro Lys Arg Glu Leu Gly
      50      55      60
Val Arg Arg Pro Gly Gly Ala Gly Lys Glu Gly Val Arg Val Asn Asn

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65					70					75				80
Arg	Phe	Glu	Leu	Ile	Asn	Ile	Asp	Asp	Leu	Glu	Asp	Asp	Pro	Val Val
				85					90					95
Asn	Gly	Glu	Arg	Ser	Gly	Cys	Ala	Leu	Thr	Asp	Ala	Val	Ala	Pro Gly
			100					105					110	
Asn	Lys	Gly	Arg	Gly	Gln	Arg	Gly	Asn	Thr	Glu	Ser	Lys	Thr	Asp Gly
		115					120					125		
Asp	Asp	Thr	Glu	Thr	Val	Pro	Ser	Glu	Gln	Ser	His	Ala	Ser	Gly Lys
		130				135					140			
Leu	Arg	Lys	Lys	Lys	Lys	Lys	Gln	Lys	Asn	Lys	Lys	Ser	Ser	Thr Gly
145					150					155				160
Glu	Ala	Ser	Glu	Asn	Gly	Leu	Glu	Asp	Ile	Asp	Arg	Ile	Leu	Glu Arg
				165				170						175
Ile	Glu	Asp	Ser	Thr	Gly	Leu	Asn	Arg	Pro	Gly	Pro	Ala	Pro	Leu Ser
			180					185					190	
Ser	Arg	Lys	His	Val	Leu	Tyr	Val	Glu	His	Arg	His	Leu	Asn	Pro Asp
		195					200					205		
Thr	Glu	Leu	Lys	Arg	Tyr	Phe	Gly	Ala	Arg	Ala	Ile	Leu	Gly	Glu Gln
						215					220			
Arg	Pro	Arg	Gln	Arg	Gln	Arg	Val	Tyr	Pro	Lys	Cys	Thr	Trp	Leu Thr
225					230					235				240
Thr	Pro	Lys	Ser	Thr	Trp	Pro	Arg	Tyr	Ser	Lys	Pro	Gly	Leu	Ser Met
				245					250					255
Arg	Leu	Leu	Glu	Ser	Lys	Lys	Gly	Leu	Ser	Phe	Phe	Ala	Phe	Glu His
			260				265						270	
Ser	Glu	Glu	Tyr	Gln	Gln	Ala	Gln	His	Lys	Phe	Leu	Val	Ala	Val Glu
		275					280					285		
Ser	Met	Glu	Pro	Asn	Asn	Ile	Val	Val	Leu	Leu	Gln	Thr	Ser	Pro Tyr
		290			295						300			
His	Val	Asp	Ser	Leu	Leu	Gln	Leu	Ser	Asp	Ala	Cys	Arg	Phe	Gln Glu
305					310					315				320
Asp	Gln	Glu	Met	Ala	Arg	Asp	Leu	Val	Glu	Arg	Ala	Leu	Tyr	Ser Met
				325					330					335
Glu	Cys	Ala	Phe	His	Pro	Leu	Phe	Ser	Leu	Thr	Ser	Gly	Ala	Cys Arg
			340					345					350	
Leu	Asp	Tyr	Arg	Arg	Pro	Glu	Asn	Arg	Ser	Phe	Tyr	Leu	Ala	Leu Tyr
		355					360						365	
Lys	Gln	Met	Ser	Phe	Leu	Glu	Lys	Arg	Gly	Cys	Pro	Arg	Thr	Ala Leu
		370				375					380			
Glu	Tyr	Cys	Lys	Leu	Ile	Leu	Ser	Leu	Glu	Pro	Asp	Glu	Asp	Pro Leu
385					390					395				400
Cys	Met	Leu	Leu	Leu	Ile	Asp	His	Leu	Ala	Leu	Arg	Ala	Arg	Asn Tyr
				405					410					415
Glu	Tyr	Leu	Ile	Arg	Leu	Phe	Gln	Glu	Trp	Glu	Val	Gly	Ala	Ser Leu
			420					425					430	
Ala	His	Arg	Asn	Leu	Ser	Gln	Leu	Pro	Asn	Phe	Ala	Phe	Ser	Val Pro
			435				440					445		
Leu	Ala	Tyr	Phe	Leu	Leu	Ser	Gln	Gln	Thr	Asp	Leu	Pro	Glu	Cys Glu
		450				455					460			
Gln	Ser	Ser	Ala	Arg	Gln	Lys	Ala	Ser	Leu	Leu	Ile	Gln	Gln	Ala Leu
465					470					475				480
Thr	Met	Phe	Pro	Gly	Val	Leu	Leu	Pro	Leu	Leu	Glu	Ser	Cys	Ser Val
				485					490					495
Arg	Pro	Asp	Ala	Ser	Val	Ser	Ser	His	Arg	Phe	Phe	Gly	Pro	Asn Ala
			500					505					510	
Glu	Ile	Ser	Gln	Pro	Pro	Ala	Leu	Ser	Gln	Leu	Val	Asn	Leu	Tyr Leu
		515					520					525		
Gly	Arg	Ser	His	Phe	Leu	Trp	Lys	Glu	Pro	Ala	Thr	Met	Ser	Trp Leu
		530				535					540			
Glu	Glu	Asn	Val	His	Glu	Val	Leu	Gln	Ala	Val	Asp	Ala	Gly	Asp Pro
545					550					555				560
Ala	Val	Glu	Ala	Cys	Glu	Asn	Arg	Arg	Lys	Val	Leu	Tyr	Gln	Arg Ala
				565				570					575	
Pro	Arg	Asn	Ile	His	Arg	His	Val	Ile	Leu	Ser	Glu	Ile	Lys	Glu Ala

			580					585				590					
Val	Ala	Ala	Leu	Pro	Pro	Asp	Val	Thr	Thr	Gln	Ser	Val	Met	Gly	Phe		
			595					600					605				
Asp	Pro	Leu	Pro	Pro	Ser	Asp	Thr	Ile	Tyr	Ser	Tyr	Val	Arg	Pro	Glu		
			610					615					620				
Arg	Leu	Ser	Pro	Ile	Ser	His	Gly	Asn	Thr	Ile	Ala	Leu	Phe	Phe	Arg		
			625			630					635				640		
Ser	Leu	Leu	Pro	Asn	Tyr	Thr	Met	Glu	Gly	Glu	Arg	Pro	Glu	Glu	Gly		
				645						650				655			
Val	Ala	Gly	Gly	Leu	Asn	Arg	Asn	Gln	Gly	Leu	Asn	Arg	Leu	Met	Leu		
			660					665					670				
Ala	Val	Arg	Asp	Met	Met	Ala	Asn	Phe	His	Leu	Asn	Asp	Leu	Glu	Ala		
			675				680					685					
Pro	His	Glu	Asp	Asp	Ala	Xaa	Gly	Glu	Gly	Glu	Trp	Asp					
			690			695					700	701					

<210> 3556

<211> 579

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(579)

<223> Xaa = any amino acid or nothing

<400> 3556

Lys	Thr	Arg	Gly	Thr	Met	Phe	Tyr	Tyr	Pro	Asn	Val	Leu	Gln	Arg	His		
1				5					10					15			
Thr	Gly	Cys	Phe	Ala	Thr	Ile	Trp	Leu	Ala	Ala	Thr	Arg	Gly	Ser	Arg		
			20					25					30				
Leu	Val	Lys	Arg	Glu	Tyr	Leu	Arg	Val	Asn	Val	Val	Lys	Thr	Cys	Glu		
			35				40					45					
Glu	Ile	Leu	Asn	Tyr	Val	Leu	Val	Arg	Val	Gln	Pro	Pro	Gln	Pro	Gly		
			50			55				60							
Leu	Pro	Arg	Pro	Arg	Phe	Ser	Leu	Tyr	Leu	Ser	Ala	Gln	Leu	Gln	Ile		
			65		70					75					80		
Gly	Val	Ile	Arg	Val	Tyr	Ser	Gln	Gln	Cys	Gln	Tyr	Leu	Val	Glu	Asp		
			85				90							95			
Ile	Gln	His	Ile	Leu	Glu	Arg	Leu	His	Arg	Ala	Gln	Leu	Gln	Ile	Arg		
			100				105						110				
Ile	Asp	Met	Glu	Thr	Glu	Leu	Pro	Ser	Leu	Leu	Leu	Pro	Asn	His	Leu		
			115				120					125					
Ala	Met	Met	Glu	Thr	Leu	Glu	Asp	Ala	Pro	Asp	Pro	Phe	Phe	Gly	Met		
			130				135				140						
Met	Ser	Val	Asp	Pro	Arg	Leu	Pro	Ser	Pro	Phe	Asp	Ile	Pro	Gln	Ile		
			145		150					155					160		
Arg	His	Leu	Leu	Glu	Ala	Ala	Ile	Pro	Glu	Arg	Val	Glu	Glu	Ile	Pro		
			165				170							175			
Pro	Glu	Val	Pro	Thr	Glu	Pro	Arg	Glu	Pro	Glu	Arg	Ile	Pro	Val	Thr		
			180				185						190				
Val	Leu	Pro	Pro	Glu	Ala	Ile	Thr	Ile	Leu	Glu	Ala	Glu	Pro	Ile	Arg		
			195				200					205					
Met	Leu	Glu	Ile	Glu	Gly	Glu	Arg	Glu	Leu	Pro	Glu	Val	Ser	Arg	Arg		
			210			215					220						
Glu	Leu	Asp	Leu	Leu	Ile	Ala	Glu	Glu	Glu	Glu	Ala	Ile	Leu	Leu	Glu		
			225		230					235					240		
Ile	Pro	Arg	Leu	Pro	Pro	Pro	Ala	Pro	Ala	Glu	Xaa	Gly	Gln	Glu	Leu		
			245				250							255			
Leu	Asp	Gln	Val	Gly	Cys	Gln	Cys	Trp	Glu	Gly	Ser	Pro	His	Phe	Ser		
			260				265					270					
Cys	Pro	Phe	Pro	Leu	Arg	Val	Glu	Gly	Met	Gly	Glu	Ala	Leu	Gly	Pro		

275	280	285
Glu Glu Leu Arg Leu Thr Gly Trp Glu Pro Gly Ala Leu Leu Met Glu		
290	295	300
Val Thr Pro Pro Glu Glu Leu Arg Leu Pro Ala Pro Pro Ser Pro Glu		
305	310	315
Arg Arg Pro Pro Val Pro Pro Pro Arg Arg Arg Arg Arg Arg		
325	330	335
Leu Leu Phe Trp Asp Lys Glu Thr Gln Ile Ser Pro Glu Lys Phe Gln		
340	345	350
Glu Gln Leu Gln Thr Arg Ala His Cys Trp Glu Cys Pro Met Val Gln		
355	360	365
Pro Pro Glu Arg Thr Ile Arg Gly Pro Ala Glu Leu Phe Arg Thr Pro		
370	375	380
Thr Leu Ser Gly Trp Leu Pro Pro Glu Leu Leu Gly Leu Trp Thr His		
385	390	395
Cys Ala Gln Pro Pro Pro Lys Ala Leu Arg Arg Glu Leu Pro Glu Glu		
405	410	415
Ala Ala Ala Glu Glu Glu Arg Arg Lys Ile Glu Val Pro Ser Glu Ile		
420	425	430
Glu Val Pro Arg Glu Ala Leu Glu Pro Ser Val Pro Leu Met Val Ser		
435	440	445
Leu Glu Ile Ser Leu Glu Ala Ala Glu Glu Glu Lys Ser Arg Ile Ser		
450	455	460
Leu Ile Pro Pro Glu Glu Arg Trp Ala Trp Pro Glu Val Glu Ala Pro		
465	470	475
Glu Ala Pro Ala Leu Pro Val Val Pro Glu Leu Pro Glu Val Pro Met		
485	490	495
Glu Met Pro Leu Val Leu Pro Pro Glu Leu Glu Leu Leu Ser Leu Glu		
500	505	510
Ala Val His Arg Ala Val Ala Leu Glu Leu Gln Ala Asn Arg Glu Pro		
515	520	525
Asp Phe Ser Ser Leu Val Ser Pro Leu Ser Pro Arg Arg Met Ala Ala		
530	535	540
Arg Val Phe Tyr Leu Leu Leu Val Leu Ser Ala Gln Gln Ile Leu His		
545	550	555
Val Lys Gln Glu Lys Pro Tyr Gly Arg Leu Leu Ile Gln Pro Gly Pro		
565	570	575
Arg Phe His		
579		

<210> 3557

<211> 579

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(579)

<223> Xaa = any amino acid or nothing

<400> 3557

Lys Thr Arg Gly Thr Met Phe Tyr Tyr Pro Asn Val Leu Gln Arg His	
1	5
Thr Gly Cys Phe Ala Thr Ile Trp Leu Ala Ala Thr Arg Gly Ser Arg	
20	25
Leu Val Lys Arg Glu Tyr Leu Arg Val Asn Val Val Lys Thr Cys Glu	
35	40
Glu Ile Leu Asn Tyr Val Leu Val Arg Val Gln Pro Pro Gln Pro Gly	
50	55
Leu Pro Arg Pro Arg Phe Ser Leu Tyr Leu Ser Ala Gln Leu Gln Ile	
65	70
Gly Val Ile Arg Val Tyr Ser Gln Gln Cys Gln Tyr Leu Val Glu Asp	

85					90					95					
Ile	Gln	His	Ile	Leu	Glu	Arg	Leu	His	Arg	Ala	Gln	Leu	Gln	Ile	Arg
			100					105					110		
Ile	Asp	Met	Glu	Thr	Glu	Leu	Pro	Ser	Leu	Leu	Leu	Pro	Asn	His	Leu
		115					120					125			
Ala	Met	Met	Glu	Thr	Leu	Glu	Asp	Ala	Pro	Asp	Pro	Phe	Phe	Gly	Met
		130					135					140			
Met	Ser	Val	Asp	Pro	Arg	Leu	Pro	Ser	Pro	Phe	Asp	Ile	Pro	Gln	Ile
						150					155				160
Arg	His	Leu	Leu	Glu	Ala	Ala	Ile	Pro	Glu	Arg	Val	Glu	Glu	Ile	Pro
				165					170					175	
Pro	Glu	Val	Pro	Thr	Glu	Pro	Arg	Glu	Pro	Glu	Arg	Ile	Pro	Val	Thr
			180					185					190		
Val	Leu	Pro	Pro	Glu	Ala	Ile	Thr	Ile	Leu	Glu	Ala	Glu	Pro	Ile	Arg
		195					200					205			
Met	Leu	Glu	Ile	Glu	Gly	Glu	Arg	Glu	Leu	Pro	Glu	Val	Ser	Arg	Arg
		210					215				220				
Glu	Leu	Asp	Leu	Leu	Ile	Ala	Glu	Glu	Glu	Glu	Ala	Ile	Leu	Leu	Glu
				230							235				240
Ile	Pro	Arg	Leu	Pro	Pro	Pro	Ala	Pro	Ala	Glu	Xaa	Gly	Gln	Glu	Leu
				245					250					255	
Leu	Asp	Gln	Val	Gly	Cys	Gln	Cys	Trp	Glu	Gly	Ser	Pro	His	Phe	Ser
		260						265					270		
Cys	Pro	Phe	Pro	Leu	Arg	Val	Glu	Gly	Met	Gly	Glu	Ala	Leu	Gly	Pro
		275					280					285			
Glu	Glu	Leu	Arg	Leu	Thr	Gly	Trp	Glu	Pro	Gly	Ala	Leu	Leu	Met	Glu
		290				295					300				
Val	Thr	Pro	Pro	Glu	Glu	Leu	Arg	Leu	Pro	Ala	Pro	Pro	Ser	Pro	Glu
				310							315				320
Arg	Arg	Pro	Pro	Val	Pro	Pro	Pro	Pro	Arg	Arg	Arg	Arg	Arg	Arg	Arg
				325					330					335	
Leu	Leu	Phe	Trp	Asp	Lys	Glu	Thr	Gln	Ile	Ser	Pro	Glu	Lys	Phe	Gln
			340					345					350		
Glu	Gln	Leu	Gln	Thr	Arg	Ala	His	Cys	Trp	Glu	Cys	Pro	Met	Val	Gln
		355					360					365			
Pro	Pro	Glu	Arg	Thr	Ile	Arg	Gly	Pro	Ala	Glu	Leu	Phe	Arg	Thr	Pro
		370				375					380				
Thr	Leu	Ser	Gly	Trp	Leu	Pro	Pro	Glu	Leu	Leu	Gly	Leu	Trp	Thr	His
				390					395						400
Cys	Ala	Gln	Pro	Pro	Pro	Lys	Ala	Leu	Arg	Arg	Glu	Leu	Pro	Glu	Glu
			405					410						415	
Ala	Ala	Ala	Glu	Glu	Arg	Arg	Lys	Ile	Glu	Val	Pro	Ser	Glu	Ile	
			420				425					430			
Glu	Val	Pro	Arg	Glu	Ala	Leu	Glu	Pro	Ser	Val	Pro	Leu	Met	Val	Ser
		435				440					445				
Leu	Glu	Ile	Ser	Leu	Glu	Ala	Ala	Glu	Glu	Glu	Lys	Ser	Arg	Ile	Ser
		450				455					460				
Leu	Ile	Pro	Pro	Glu	Glu	Arg	Trp	Ala	Trp	Pro	Glu	Val	Glu	Ala	Pro
				470					475					480	
Glu	Ala	Pro	Ala	Leu	Pro	Val	Val	Pro	Glu	Leu	Pro	Glu	Val	Pro	Met
			485					490						495	
Glu	Met	Pro	Leu	Val	Leu	Pro	Pro	Glu	Leu	Glu	Leu	Leu	Ser	Leu	Glu
			500				505					510			
Ala	Val	His	Arg	Ala	Val	Ala	Leu	Glu	Leu	Gln	Ala	Asn	Arg	Glu	Pro
		515				520					525				
Asp	Phe	Ser	Ser	Leu	Val	Ser	Pro	Leu	Ser	Pro	Arg	Arg	Met	Ala	Ala
		530				535					540				
Arg	Val	Phe	Tyr	Leu	Leu	Leu	Val	Leu	Ser	Ala	Gln	Gln	Ile	Leu	His
				550					555					560	
Val	Lys	Gln	Glu	Lys	Pro	Tyr	Gly	Arg	Leu	Leu	Ile	Gln	Pro	Gly	Pro
				565				570					575		
Arg	Phe	His													
			579												

<210> 3558

<211> 623

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(623)

<223> Xaa = any amino acid or nothing

<400> 3558

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Ile Arg Pro Arg Pro Arg Gly Arg Arg Arg Ala Leu Asp Ser Pro Asn
 1           5           10           15
Ala Ala Ala Pro Pro Val Tyr Val Cys Arg Ser Pro Gly Glu Pro Thr
          20           25           30
Ser Leu Val Asn Met Ala Ser Glu Asp Ile Ala Lys Leu Ala Glu Thr
          35           40           45
Leu Ala Lys Thr Gln Val Ala Gly Gly Gln Leu Ser Phe Lys Gly Lys
          50           55           60
Ser Leu Lys Leu Asn Thr Ala Glu Asp Ala Lys Asp Val Ile Lys Glu
          65           70           75           80
Ile Glu Asp Phe Asp Ser Leu Glu Ala Leu Arg Leu Glu Gly Asn Thr
          85           90           95
Val Gly Val Glu Ala Ala Arg Val Ile Ala Lys Ala Leu Xaa Lys Lys
          100          105          110
Ser Glu Leu Lys Arg Cys His Trp Ser Asp Met Phe Thr Gly Arg Leu
          115          120          125
Arg Thr Glu Ile Pro Pro Ala Leu Ile Ser Leu Gly Glu Gly Leu Ile
          130          135          140
Thr Ala Gly Ala Gln Leu Val Glu Leu Asp Leu Ser Asp Asn Ala Phe
          145          150          155          160
Gly Pro Asp Gly Val Gln Gly Phe Glu Ala Leu Leu Lys Ser Ser Ala
          165          170          175
Cys Phe Thr Leu Gln Glu Leu Lys Leu Asn Asn Cys Gly Met Gly Ile
          180          185          190
Gly Gly Gly Lys Ile Leu Ala Ala Ala Leu Thr Glu Cys His Arg Lys
          195          200          205
Ser Ser Ala Gln Gly Lys Pro Leu Ala Leu Lys Val Phe Val Ala Gly
          210          215          220
Arg Asn Arg Leu Glu Asn Asp Gly Ala Thr Ala Leu Ala Glu Ala Phe
          225          230          235          240
Arg Val Ile Gly Thr Leu Glu Glu Val His Met Pro Gln Asn Gly Ile
          245          250          255
Asn His Pro Gly Ile Thr Ala Leu Ala Gln Ala Phe Ala Val Asn Pro
          260          265          270
Leu Leu Arg Val Ile Asn Leu Asn Asp Asn Thr Phe Thr Glu Lys Gly
          275          280          285
Ala Val Ala Met Ala Glu Thr Leu Lys Thr Leu Arg Gln Val Glu Val
          290          295          300
Ile Asn Phe Gly Asp Cys Leu Val Arg Ser Lys Gly Ala Val Ala Ile
          305          310          315          320
Ala Asp Ala Ile Arg Gly Gly Leu Pro Lys Leu Lys Glu Leu Asn Leu
          325          330          335
Ser Phe Cys Glu Ile Lys Arg Asp Ala Ala Leu Ala Val Ala Glu Ala
          340          345          350
Met Ala Asp Lys Ala Glu Leu Glu Lys Leu Asp Leu Asn Gly Asn Thr
          355          360          365
Leu Gly Glu Glu Gly Cys Glu Gln Leu Gln Glu Val Leu Glu Gly Phe
          370          375          380
Asn Met Ala Lys Val Leu Ala Ser Leu Ser Asp Asp Glu Asp Glu Glu
          385          390          395          400
Glu Glu Glu Glu Gly Glu Glu Glu Glu Glu Ala Glu Glu Glu Glu

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      405      410      415
Glu Glu Asp Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu
      420      425      430
Glu Pro Gln Gln Arg Gly Gln Gly Glu Lys Ser Ala Thr Pro Ser Arg
      435      440      445
Lys Ile Leu Asp Pro Asn Thr Gly Glu Pro Ala Pro Val Leu Ser Ser
      450      455      460
Pro Pro Pro Ala Asp Val Ser Thr Phe Leu Ala Phe Pro Ser Pro Glu
465      470      475      480
Lys Leu Leu Arg Leu Gly Pro Lys Ser Ser Val Leu Ile Ala Gln Gln
      485      490      495
Thr Asp Thr Ser Asp Pro Glu Lys Val Val Ser Ala Phe Leu Lys Val
      500      505      510
Ser Ser Val Phe Lys Asp Glu Ala Thr Val Arg Met Ala Val Gln Asp
      515      520      525
Ala Val Asp Ala Leu Met Gln Lys Ala Phe Asn Ser Ser Ser Phe Asn
      530      535      540
Ser Asn Thr Phe Leu Thr Arg Leu Leu Val His Met Gly Leu Leu Lys
545      550      555      560
Ser Glu Asp Lys Val Lys Ala Ile Ala Asn Leu Tyr Gly Pro Leu Met
      565      570      575
Ala Leu Asn His Met Val Gln Gln Asp Tyr Phe Pro Lys Ala Leu Ala
      580      585      590
Pro Leu Leu Leu Ala Phe Val Thr Lys Pro Asn Ser Ala Leu Glu Ser
      595      600      605
Cys Ser Phe Ala Arg His Ser Leu Leu Gln Thr Leu Tyr Lys Val
      610      615      620      623

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<210> 3559

<211> 623

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(623)

<223> Xaa = any amino acid or nothing

<400> 3559

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Ile Arg Pro Arg Pro Arg Gly Arg Arg Arg Ala Leu Asp Ser Pro Asn
 1          5          10          15
Ala Ala Ala Pro Pro Val Tyr Val Cys Arg Ser Pro Gly Glu Pro Thr
      20      25      30
Ser Leu Val Asn Met Ala Ser Glu Asp Ile Ala Lys Leu Ala Glu Thr
      35      40      45
Leu Ala Lys Thr Gln Val Ala Gly Gly Gln Leu Ser Phe Lys Gly Lys
      50      55      60
Ser Leu Lys Leu Asn Thr Ala Glu Asp Ala Lys Asp Val Ile Lys Glu
      65      70      75      80
Ile Glu Asp Phe Asp Ser Leu Glu Ala Leu Arg Leu Glu Gly Asn Thr
      85      90      95
Val Gly Val Glu Ala Ala Arg Val Ile Ala Lys Ala Leu Xaa Lys Lys
      100      105      110
Ser Glu Leu Lys Arg Cys His Trp Ser Asp Met Phe Thr Gly Arg Leu
      115      120      125
Arg Thr Glu Ile Pro Pro Ala Leu Ile Ser Leu Gly Glu Gly Leu Ile
      130      135      140
Thr Ala Gly Ala Gln Leu Val Glu Leu Asp Leu Ser Asp Asn Ala Phe
      145      150      155      160
Gly Pro Asp Gly Val Gln Gly Phe Glu Ala Leu Leu Lys Ser Ser Ala
      165      170      175
Cys Phe Thr Leu Gln Glu Leu Lys Leu Asn Asn Cys Gly Met Gly Ile

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<210> 3560 . . .  
<211> 398  
<212> PRT  
<213> Homo sapiens  
  
<221> misc feature
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<222> (1) ... (398)

<223> Xaa = any amino acid or nothing

<400> 3560

Phe	Val	Arg	Glu	Leu	Pro	Arg	Pro	Arg	Pro	Gly	Ala	Ala	Thr	Ala	Ala
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Ile	Met	Val	Ser	Val	Ile	Asn	Thr	Val	Asp	Thr	Ser	His	Glu	Asp	Met
			20					25					30		
Ile	His	Asp	Ala	Gln	Met	Asp	Tyr	Tyr	Gly	Thr	Arg	Leu	Ala	Thr	Cys
		35				40					45				
Ser	Ser	Asp	Arg	Ser	Val	Lys	Ile	Phe	Asp	Val	Arg	Asn	Gly	Gly	Gln
	50					55					60				
Ile	Leu	Ile	Ala	Asp	Leu	Arg	Gly	His	Glu	Gly	Pro	Val	Trp	Gln	Val
65					70				75					80	
Ala	Trp	Ala	His	Pro	Met	Tyr	Gly	Asn	Ile	Leu	Ala	Ser	Cys	Ser	Tyr
				85				90						95	
Asp	Arg	Lys	Val	Ile	Ile	Trp	Arg	Glu	Glu	Asn	Gly	Thr	Trp	Glu	Lys
			100					105					110		
Ser	His	Glu	His	Ala	Gly	His	Asp	Ser	Ser	Val	Asn	Ser	Val	Cys	Trp
	115					120						125			
Ala	Pro	His	Asp	Tyr	Gly	Leu	Ile	Leu	Ala	Cys	Gly	Ser	Ser	Asp	Gly
	130					135					140				
Ala	Ile	Ser	Leu	Leu	Thr	Tyr	Thr	Gly	Glu	Gly	Gln	Trp	Glu	Val	Lys
145					150				155					160	
Lys	Ile	Asn	Asn	Ala	His	Thr	Ile	Gly	Cys	Asn	Ala	Val	Ser	Trp	Ala
				165					170					175	
Pro	Ala	Val	Val	Pro	Gly	Ser	Leu	Ile	Asp	His	Pro	Ser	Gly	Gln	Lys
			180					185					190		
Pro	Asn	Tyr	Ile	Lys	Arg	Phe	Ala	Ser	Gly	Gly	Cys	Asp	Asn	Leu	Ile
	195					200						205			
Lys	Leu	Trp	Lys	Glu	Glu	Glu	Asp	Gly	Gln	Trp	Lys	Glu	Glu	Gln	Lys
	210					215					220				
Leu	Glu	Ala	His	Ser	Asp	Trp	Val	Arg	Asp	Val	Ala	Trp	Ala	Pro	Ser
225					230				235					240	
Ile	Gly	Leu	Pro	Thr	Ser	Thr	Ile	Ala	Ser	Cys	Ser	Gln	Asp	Gly	Arg
				245				250					255		
Val	Phe	Ile	Trp	Thr	Cys	Asp	Asp	Ala	Ser	Ser	Asn	Thr	Trp	Ser	Pro
			260					265					270		
Lys	Leu	Leu	His	Lys	Phe	Asn	Asp	Val	Val	Trp	His	Val	Ser	Trp	Ser
	275					280						285			
Ile	Thr	Ala	Asn	Ile	Leu	Ala	Val	Ser	Gly	Gly	Asp	Asn	Lys	Val	Thr
	290					295					300				
Leu	Trp	Lys	Glu	Ser	Val	Asp	Gly	Gln	Trp	Val	Cys	Ile	Ser	Asp	Val
305					310				315					320	
Asn	Lys	Gly	Gln	Gly	Ser	Val	Ser	Ala	Ser	Val	Thr	Glu	Gly	Gln	Gln
				325				330						335	
Asn	Glu	Gln	Xaa	Gln	Asp	Arg	Trp	Gly	Leu	Ala	Pro	His	Pro	Pro	Ala
			340					345					350		
Pro	Gly	Leu	Pro	Leu	Pro	Gly	Pro	Thr	Asn	Gln	Thr	Thr	Gly	Lys	Ser
	355					360						365			
Pro	Gln	Leu	Gln	Gln	Asp	Tyr	Phe	Pro	Arg	Arg	Ser	Tyr	Arg	Cys	Ser
	370					375					380				
His	Arg	Leu	Ile	Ile	Cys	Leu	Asn	Val	Ile	Gly	Asp	Ala	Leu		
385					390					395			398		

<210> 3561

<211> 151

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)... (151)

<223> Xaa = any amino acid or nothing

<400> 3561

Trp	Arg	Val	Lys	Glu	Met	Thr	Ser	Thr	Leu	Pro	Lys	Ala	Leu	Gly	Arg
1				5					10					15	
Lys	Thr	Ala	Ser	Arg	Ser	His	Thr	Thr	Leu	Gln	Gly	Gly	Ser	Cys	Cys
			20					25					30		
Pro	Val	Leu	Trp	Thr	Ala	Lys	Leu	Arg	Cys	Arg	Lys	Leu	Arg	Phe	Pro
		35					40					45			
Leu	Pro	Pro	Pro	Pro	Pro	Ser	Ser	Ser	Ala	Trp	Pro	Trp	Gln	Gly	Trp
	50					55					60				
Gly	Ile	Arg	Gly	Glu	Gln	Glu	Ala	Glu	Gly	Pro	Leu	Gly	Glu	Thr	Gly
65					70					75				80	
Pro	Pro	Val	Gly	Pro	Glu	Leu	Ser	Gly	Leu	Arg	Gln	Trp	Arg	Lys	Leu
				85					90					95	
Ile	Lys	Gly	Arg	Tyr	Gly	Glu	Trp	Arg	Gly	Ser	Gly	Gln	Lys	Thr	Gly
			100					105					110		
Gln	Pro	Ser	Xaa	Thr	Thr	Met	Gln	Gly	Gly	Glu	Thr	Glu	Glu	Asn	Arg
		115					120					125			
Thr	Glu	Thr	Thr	Thr	Gly	Asn	Lys	Gln	Arg	Glu	Ser	Glu	Ala	Pro	Trp
	130					135					140				
Val	Arg	His	Thr	Tyr	Ile	Thr									
145					150	151									

<210> 3562

<211> 559

<212> PRT

<213> Homo sapiens

<400> 3562

Pro	Met	Met	Ala	Met	Pro	Phe	Phe	Glu	Arg	Phe	Lys	Ser	Ser	Ile	Gln
1				5					10					15	
Arg	Pro	Ser	Pro	Val	Leu	Val	Leu	Ser	Gln	Asn	Thr	Lys	Arg	Glu	Ser
			20					25					30		
Gly	Arg	Lys	Val	Gln	Ser	Gly	Asn	Ile	Asn	Ala	Ala	Lys	Thr	Ile	Ala
		35					40					45			
Asp	Ile	Ile	Arg	Thr	Cys	Leu	Gly	Pro	Lys	Ser	Met	Met	Lys	Met	Leu
	50					55					60				
Leu	Asp	Pro	Met	Gly	Gly	Ile	Val	Met	Thr	Asn	Asp	Gly	Asn	Ala	Ile
65					70					75				80	
Leu	Arg	Glu	Ile	Gln	Val	Gln	His	Pro	Ala	Ala	Lys	Ser	Met	Ile	Glu
				85				90						95	
Ile	Ser	Arg	Thr	Gln	Asp	Glu	Glu	Val	Gly	Asp	Gly	Thr	Thr	Ser	Val
			100					105					110		
Ile	Ile	Leu	Ala	Gly	Glu	Met	Leu	Ser	Val	Ala	Glu	His	Phe	Leu	Glu
		115					120					125			
Gln	Gln	Met	His	Pro	Thr	Val	Val	Ile	Ser	Ala	Tyr	Arg	Lys	Ala	Leu
	130					135					140				
Asp	Asp	Met	Ile	Ser	Thr	Leu	Lys	Lys	Ile	Ser	Ile	Pro	Val	Asp	Ile
145					150					155				160	
Ser	Asp	Ser	Asp	Met	Met	Leu	Asn	Ile	Ile	Asn	Ser	Ser	Ile	Thr	Thr
				165					170					175	
Lys	Ala	Ile	Ser	Arg	Trp	Ser	Ser	Leu	Ala	Cys	Asn	Ile	Ala	Leu	Asp
			180					185					190		
Ala	Val	Lys	Met	Val	Gln	Phe	Glu	Glu	Asn	Gly	Arg	Lys	Glu	Ile	Asp
		195					200					205			
Ile	Lys	Lys	Tyr	Ala	Arg	Val	Glu	Lys	Ile	Pro	Gly	Gly	Ile	Ile	Glu
	210					215					220				
Asp	Ser	Cys	Val	Leu	Arg	Gly	Val	Met	Ile	Asn	Lys	Asp	Val	Thr	His

225		230		235		240
Pro Arg Met Arg Arg Tyr Ile Lys Asn Pro Arg Ile Val Leu Leu Asp						
	245		250		255	
Ser Ser Leu Glu Tyr Lys Lys Gly Glu Ser Gln Thr Asp Ile Glu Ile						
	260		265		270	
Thr Arg Glu Glu Asp Phe Thr Arg Ile Leu Gln Met Glu Glu Glu Tyr						
	275		280		285	
Ile Gln Gln Leu Cys Glu Asp Ile Ile Gln Leu Lys Pro Asp Val Val						
	290		295		300	
Ile Thr Glu Lys Gly Ile Ser Asp Leu Ala Gln His Tyr Leu Met Arg						
305		310		315		320
Ala Asn Ile Thr Ala Ile Arg Arg Val Arg Lys Thr Asp Asn Asn Arg						
	325		330		335	
Ile Ala Arg Ala Cys Gly Ala Arg Ile Val Ser Arg Pro Glu Glu Leu						
	340		345		350	
Arg Glu Asp Asp Val Gly Thr Gly Ala Gly Leu Leu Glu Ile Lys Lys						
	355		360		365	
Ile Gly Asp Glu Tyr Phe Thr Phe Ile Thr Asp Cys Lys Asp Pro Lys						
	370		375		380	
Ala Cys Thr Ile Leu Leu Arg Gly Ala Ser Lys Glu Ile Leu Ser Glu						
385		390		395		400
Val Glu Arg Asn Phe Gln Asp Ala Met Gln Val Cys Arg Asn Val Leu						
	405		410		415	
Leu Asp Pro Gln Leu Val Pro Gly Gly Gly Ala Ser Glu Met Ala Val						
	420		425		430	
Ala His Ala Leu Thr Glu Lys Ser Lys Ala Met Thr Gly Val Glu Gln						
	435		440		445	
Trp Pro Tyr Arg Ala Val Ala Gln Ala Leu Glu Val Ile Pro Arg Thr						
	450		455		460	
Leu Ile Gln Asn Cys Gly Ala Ser Thr Ile Arg Leu Leu Thr Ser Leu						
465		470		475		480
Arg Ala Lys His Thr Gln Glu Asn Cys Glu Thr Trp Gly Val Asn Gly						
	485		490		495	
Glu Thr Gly Thr Leu Val Asp Met Lys Glu Leu Gly Ile Trp Glu Pro						
	500		505		510	
Leu Ala Val Lys Leu Gln Thr Tyr Lys Thr Ala Val Glu Thr Ala Val						
	515		520		525	
Leu Leu Leu Arg Ile Asp Asp Ile Val Ser Gly His Lys Lys Lys Gly						
	530		535		540	
Asp Asp Gln Ser Arg Gln Gly Gly Ala Pro Asp Ala Gly Gln Glu						
545		550		555		559

<210> 3563

<211> 337

<212> PRT

<213> Homo sapiens

<400> 3563

Gly Pro Ser Leu Leu Gly Thr Arg Gly Thr Pro Asn Pro Ala Arg Thr														
1		5		10		15								
Leu Gln Ile Phe Phe Leu Ile Ile Gly Arg Arg Leu Thr Gly Arg Met														
	20		25		30									
Ala Ala Val Asp Asp Leu Gln Phe Glu Glu Phe Gly Asn Ala Ala Thr														
	35		40		45									
Ser Leu Thr Ala Asn Pro Asp Ala Thr Thr Val Asn Ile Glu Asp Pro														
	50		55		60									
Gly Glu Thr Pro Lys His Gln Pro Gly Ser Pro Arg Gly Ser Gly Arg														
	65		70		75									
Glu Glu Asp Asp Glu Leu Leu Gly Asn Asp Asp Ser Asp Lys Thr Glu														
	85		90		95									
Leu Leu Ala Gly Gln Lys Lys Ser Ser Pro Phe Trp Thr Phe Glu Tyr														

			100					105					110				
Tyr	Gln	Thr	Phe	Phe	Asp	Val	Asp	Thr	Tyr	Gln	Val	Phe	Asp	Arg	Ile		
			115					120					125				
Lys	Gly	Ser	Leu	Leu	Pro	Ile	Pro	Gly	Lys	Asn	Phe	Val	Arg	Leu	Tyr		
			130					135					140				
Ile	Arg	Ser	Asn	Pro	Asp	Leu	Tyr	Gly	Pro	Phe	Trp	Ile	Cys	Ala	Thr		
145					150					155					160		
Leu	Val	Phe	Ala	Ile	Ala	Ile	Ser	Gly	Asn	Leu	Ser	Asn	Phe	Leu	Ile		
				165					170					175			
His	Leu	Gly	Glu	Lys	Thr	Tyr	His	Tyr	Val	Pro	Glu	Phe	Arg	Lys	Val		
			180					185					190				
Ser	Ile	Ala	Ala	Thr	Ile	Ile	Tyr	Ala	Tyr	Ala	Trp	Leu	Val	Pro	Leu		
		195					200					205					
Ala	Leu	Trp	Gly	Phe	Leu	Met	Trp	Arg	Asn	Ser	Lys	Val	Met	Asn	Ile		
		210				215						220					
Val	Ser	Tyr	Ser	Phe	Leu	Glu	Ile	Val	Cys	Val	Tyr	Gly	Tyr	Ser	Leu		
225					230					235					240		
Phe	Ile	Tyr	Ile	Pro	Thr	Ala	Ile	Leu	Trp	Ile	Ile	Pro	His	Lys	Ala		
				245				250						255			
Val	Arg	Trp	Ile	Leu	Val	Met	Ile	Ala	Leu	Gly	Ile	Ser	Gly	Ser	Leu		
			260					265					270				
Leu	Ala	Met	Thr	Phe	Trp	Pro	Ala	Val	Arg	Glu	Asp	Asn	Arg	Arg	Val		
		275					280					285					
Ala	Leu	Ala	Thr	Ile	Val	Thr	Ile	Val	Leu	Leu	His	Met	Leu	Leu	Ser		
		290				295					300						
Val	Gly	Cys	Leu	Ala	Tyr	Phe	Phe	Asp	Ala	Pro	Glu	Met	Asp	His	Leu		
305					310				315						320		
Pro	Thr	Thr	Thr	Ala	Thr	Pro	Asn	Gln	Thr	Val	Ala	Ala	Ala	Lys	Ser		
				325				330						335			
Ser																	
337																	

<210> 3564
 <211> 109
 <212> PRT
 <213> Homo sapiens

Asn	Ser	Arg	Val	Asp	Asp	Phe	Val	Ala	His	Leu	Gln	Arg	Pro	Leu	Leu		
1				5				10						15			
Gly	Pro	Ala	Ser	Cys	Leu	Gly	Ile	Leu	Arg	Pro	Ala	Met	Thr	Ala	His		
			20					25					30				
Ser	Phe	Ala	Leu	Pro	Gly	Ile	Ile	Phe	Thr	Thr	Phe	Trp	Gly	Leu	Val		
		35				40						45					
Gly	Ile	Ala	Gly	Pro	Trp	Phe	Val	Pro	Lys	Gly	Pro	Asn	Arg	Gly	Val		
	50					55					60						
Ile	Ile	Thr	Met	Leu	Val	Ala	Thr	Ala	Val	Cys	Cys	Tyr	Leu	Phe	Trp		
65				70						75					80		
Leu	Ile	Ala	Ile	Leu	Ala	Gln	Leu	Asn	Pro	Leu	Phe	Gly	Pro	Gln	Leu		
				85				90						95			
Lys	Asn	Glu	Thr	Ile	Trp	Tyr	Val	Arg	Phe	Leu	Trp	Glu					
			100					105				109					

<210> 3565
 <211> 359
 <212> PRT
 <213> Homo sapiens

<400> 3565

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Phe Val Thr Asp Phe Pro Ala Arg Ser Met Ala Ala Thr Ser Leu Met
 1          5          10          15
Ser Ala Leu Ala Ala Arg Leu Leu Gln Pro Ala His Ser Cys Ser Leu
          20          25          30
Arg Leu Arg Pro Phe His Leu Ala Ala Val Arg Asn Glu Ala Val Val
          35          40          45
Ile Ser Gly Arg Lys Leu Ala Gln Gln Ile Lys Gln Glu Val Arg Gln
          50          55          60
Glu Val Glu Glu Trp Val Ala Ser Gly Asn Lys Arg Pro His Leu Ser
          65          70          75          80
Val Ile Leu Val Gly Glu Asn Pro Ala Ser His Ser Tyr Val Leu Asn
          85          90          95
Lys Thr Arg Ala Ala Val Val Gly Ile Asn Ser Glu Thr Ile Met
          100          105          110
Lys Pro Ala Ser Ile Ser Glu Glu Glu Leu Leu Asn Leu Ile Asn Lys
          115          120          125
Leu Asn Asn Asp Asp Asn Val Asp Gly Leu Leu Val Gln Leu Pro Leu
          130          135          140
Pro Glu His Ile Asp Glu Arg Arg Ile Cys Asn Ala Val Ser Pro Asp
          145          150          155          160
Lys Asp Val Asp Gly Phe His Val Ile Asn Val Gly Arg Met Cys Leu
          165          170          175
Asp Gln Tyr Ser Met Leu Pro Ala Thr Pro Trp Gly Val Trp Glu Ile
          180          185          190
Ile Lys Arg Thr Gly Ile Pro Thr Leu Gly Lys Asn Val Val Val Ala
          195          200          205
Gly Arg Ser Lys Asn Val Gly Met Pro Ile Ala Met Leu Leu His Thr
          210          215          220
Asp Gly Ala His Glu Arg Pro Gly Gly Asp Ala Thr Val Thr Ile Ser
          225          230          235          240
His Arg Tyr Thr Pro Lys Glu Gln Leu Lys Lys His Thr Ile Leu Ala
          245          250          255
Asp Ile Val Ile Ser Ala Ala Gly Ile Pro Asn Leu Ile Thr Ala Asp
          260          265          270
Met Ile Lys Glu Gly Ala Ala Val Ile Asp Val Gly Ile Asn Arg Val
          275          280          285
His Asp Pro Val Thr Ala Lys Pro Lys Leu Val Gly Asp Val Asp Phe
          290          295          300
Glu Gly Val Arg Gln Lys Ala Gly Tyr Ile Thr Pro Val Pro Gly Gly
          305          310          315          320
Val Gly Pro Met Thr Val Ala Met Leu Met Lys Asn Thr Ile Ile Ala
          325          330          335
Ala Lys Lys Val Leu Arg Leu Glu Glu Arg Glu Val Leu Lys Ser Lys
          340          345          350
Glu Leu Gly Val Ala Thr Asn
          355          359

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<210> 3566

<211> 375

<212> PRT

<213> Homo sapiens

<400> 3566

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Ser Cys Arg Arg Gly Arg Gln Gln Gln Arg Arg Asn Val Ser Leu Ser
 1          5          10          15
Ser Gln Phe Ala His Thr Met Ala Ala Pro Ala Gln Gln Thr Thr Gln
          20          25          30
Pro Gly Gly Gly Lys Arg Lys Gly Lys Ala Gln Tyr Val Leu Ala Lys
          35          40          45
Arg Ala Arg Arg Cys Asp Ala Gly Gly Pro Arg Gln Leu Glu Pro Gly

```

50		55		60											
Leu	Gln	Gly	Ile	Leu	Ile	Thr	Cys	Asn	Met	Asn	Glu	Arg	Lys	Cys	Val
65		70		75		80									
Glu	Glu	Ala	Tyr	Ser	Leu	Leu	Asn	Glu	Tyr	Gly	Asp	Asp	Met	Tyr	Gly
		85		90		95									
Pro	Glu	Lys	Phe	Thr	Asp	Lys	Asp	Gln	Gln	Pro	Ser	Gly	Ser	Glu	Gly
		100		105		110									
Glu	Asp	Asp	Asp	Ala	Glu	Ala	Ala	Leu	Lys	Lys	Glu	Val	Gly	Asp	Ile
		115		120		125									
Lys	Ala	Ser	Thr	Glu	Met	Arg	Leu	Arg	Arg	Phe	Gln	Ser	Val	Glu	Ser
		130		135		140									
Gly	Ala	Asn	Asn	Val	Val	Phe	Ile	Arg	Thr	Leu	Gly	Ile	Glu	Pro	Glu
145		150		155		160									
Lys	Leu	Val	His	His	Ile	Leu	Gln	Asp	Met	Tyr	Lys	Thr	Lys	Lys	Lys
		165		170		175									
Lys	Thr	Arg	Val	Ile	Leu	Arg	Met	Leu	Pro	Ile	Ser	Gly	Thr	Cys	Lys
		180		185		190									
Ala	Phe	Leu	Glu	Asp	Met	Lys	Lys	Tyr	Ala	Glu	Thr	Phe	Leu	Glu	Pro
		195		200		205									
Trp	Phe	Lys	Ala	Pro	Asn	Lys	Gly	Thr	Phe	Gln	Ile	Val	Tyr	Lys	Ser
210		215		220		225									
Arg	Asn	Asn	Ser	His	Val	Asn	Arg	Glu	Glu	Val	Ile	Arg	Glu	Leu	Ala
225		230		235		240									
Gly	Ile	Val	Cys	Thr	Leu	Asn	Ser	Glu	Asn	Lys	Val	Asp	Leu	Thr	Asn
		245		250		255									
Pro	Gln	Tyr	Thr	Val	Val	Val	Glu	Ile	Ile	Lys	Ala	Val	Cys	Cys	Leu
		260		265		270									
Ser	Val	Val	Lys	Asp	Tyr	Met	Leu	Phe	Arg	Lys	Tyr	Asn	Leu	Gln	Glu
		275		280		285									
Val	Val	Lys	Ser	Pro	Lys	Asp	Pro	Ser	Gln	Leu	Asn	Ser	Lys	Gln	Gly
290		295		300		305									
Asn	Gly	Lys	Glu	Ala	Lys	Leu	Glu	Ser	Ala	Asp	Lys	Ser	Asp	Gln	Asn
310		315		320		325									
Asn	Thr	Ala	Glu	Gly	Lys	Asn	Asn	Gln	Gln	Val	Pro	Glu	Asn	Thr	Glu
		330		335		340									
Glu	Leu	Gly	Gln	Thr	Lys	Pro	Thr	Ser	Asn	Pro	Gln	Val	Val	Asn	Glu
		345		350		355									
Gly	Gly	Ala	Lys	Pro	Glu	Leu	Ala	Ser	Gln	Ala	Thr	Glu	Gly	Ser	Lys
		360		365		370									
Ser	Asn	Glu	Asn	Asp	Phe	Ser									
375															

<210> 3567

<211> 1083

<212> PRT

<213> Homo sapiens

<400> 3567

Gly	Lys	Lys	Asp	Ser	Ser	Pro	Trp	Thr	Cys	Pro	Phe	His	Pro	Pro	Leu
1		5		10		15									
Gln	Leu	Phe	Phe	Val	Ile	Arg	Asn	Thr	Arg	Gln	Leu	Gly	Asp	Phe	His
		20		25		30									
Leu	Ala	Lys	Ile	Lys	Val	Arg	Asn	Tyr	Trp	Thr	Ala	Asp	Gly	Asp	Leu
		35		40		45									
Asp	Ile	Gly	Ala	Lys	Asn	Val	Lys	Leu	Tyr	Val	Asn	Arg	Asn	Leu	Ile
		50		55		60									
Phe	Asn	Gly	Lys	Leu	Asp	Lys	Gly	Asp	Arg	Glu	Ala	Pro	Ala	Asp	His
65		70		75		80									
Ser	Ile	Leu	Val	Asp	Gln	Lys	Asn	Glu	Lys	Ser	Glu	Gln	Leu	Glu	Glu
		85		90		95									
Ala	Met	Asn	Ala	His	Ser	Glu	Glu	Ser	Lys	Gly	Thr	His	Glu	Met	Ala

5331

610	615	620
Arg Arg Pro Ser Thr Ala Asp Gly Glu Gly Asp Glu Arg Pro Phe Thr		
625	630	635
Gln Ala Gly Leu Gly Ala Asp Glu Arg Ile Pro Glu Leu Glu Leu Pro		640
	645	650
Ser Ser Ser Pro Val Pro Gln Val Thr Thr Pro Glu Pro Gly Ile Tyr		655
	660	665
His Gly Ile Cys Leu Gln Leu Asn Phe Thr Ala Ser Trp Gly Asp Leu		670
	675	680
His Tyr Leu Gly Leu Thr Gly Leu Glu Val Val Gly Lys Glu Gly Gln		685
	690	695
Ala Leu Pro Ile His Leu His Gln Ile Ser Ala Ser Pro Arg Asp Leu		700
705	710	715
Asn Glu Leu Pro Glu Tyr Ser Asp Asp Ser Arg Thr Leu Asp Lys Leu		720
	725	730
Ile Asp Gly Thr Asn Ile Thr Met Glu Asp Glu His Met Trp Leu Ile		735
	740	745
Pro Phe Ser Pro Gly Leu Asp His Val Val Thr Ile Arg Leu Asp Arg		750
	755	760
Ala Glu Ser Ile Ala Gly Leu Arg Phe Trp Asn Tyr Asn Lys Ser Pro		765
	770	775
Glu Asp Thr Tyr Arg Gly Ala Lys Ile Val His Val Ser Leu Asp Gly		780
785	790	795
Leu Cys Val Ser Pro Pro Glu Gly Phe Leu Ile Arg Lys Gly Pro Gly		800
	805	810
Asn Cys His Phe Asp Phe Ala Gln Glu Ile Leu Phe Val Asp Tyr Leu		815
	820	825
Arg Ala Gln Leu Leu Pro Gln Pro Ala Arg Arg Leu Asp Met Arg Ser		830
	835	840
Leu Glu Cys Ala Ser Met Asp Tyr Glu Ala Pro Leu Met Pro Cys Gly		845
	850	855
Phe Ile Phe Gln Phe Gln Leu Leu Thr Ser Trp Gly Asp Pro Tyr Tyr		860
865	870	875
Ile Gly Leu Thr Gly Leu Glu Leu Tyr Asp Glu Arg Gly Glu Lys Ile		880
	885	890
Pro Leu Ser Glu Asn Asn Ile Ala Ala Phe Pro Asp Ser Val Asn Ser		895
	900	905
Leu Glu Gly Val Gly Gly Asp Val Arg Thr Pro Asp Lys Leu Ile Asp		910
	915	920
Gln Val Asn Asp Thr Ser Asp Gly Arg His Met Trp Leu Ala Pro Ile		925
	930	935
Leu Pro Gly Leu Val Asn Arg Val Tyr Val Ile Phe Asp Leu Pro Thr		940
945	950	955
Thr Val Ser Met Ile Lys Leu Trp Asn Tyr Ala Lys Thr Pro His Arg		960
	965	970
Gly Val Lys Glu Phe Gly Leu Leu Val Asp Asp Leu Leu Val Tyr Asn		975
	980	985
Gly Ile Leu Ala Met Val Ser His Leu Val Gly Gly Ile Leu Pro Thr		990
	995	1000
Cys Glu Pro Thr Val Pro Tyr His Thr Ile Leu Phe Thr Glu Asp Arg		1005
1010	1015	1020
Asp Ile Arg His Gln Glu Lys His Thr Thr Ile Ser Asn Gln Ala Glu		1025
1025	1030	1035
Asp Gln Asp Val Gln Met Met Asn Glu Asn Gln Ile Ile Thr Asn Ala		1040
	1045	1050
Lys Arg Lys Gln Ser Val Val Asp Pro Ala Leu Arg Pro Lys Thr Cys		1055
	1060	1065
Ile Ser Glu Lys Glu Thr Arg Arg Arg Cys		1070
	1075	1080
		1083

<210> 3568

<211> 558

<212> PRT

<213> Homo sapiens

<400> 3568

Ala Gln Gly Gly Thr Leu Ser Ala Ala Ser Arg Phe Cys Arg Gly Gly
 1 5 10 15
 Leu Leu Gly Pro Trp Leu His Pro Ala Ser Glu Met Ala Ala Thr Leu
 20 25 30
 Asp Leu Lys Ser Lys Glu Glu Lys Asp Ala Glu Leu Asp Lys Arg Ile
 35 40 45
 Glu Ala Leu Arg Arg Lys Asn Glu Ala Leu Ile Arg Arg Tyr Gln Glu
 50 55 60
 Ile Glu Glu Asp Arg Lys Lys Ala Glu Leu Glu Gly Val Ala Val Thr
 65 70 75 80
 Ala Pro Arg Lys Gly Arg Ser Val Glu Lys Glu Asn Val Ala Val Glu
 85 90 95
 Ser Glu Lys Asn Leu Gly Pro Ser Arg Arg Ser Pro Gly Thr Pro Arg
 100 105 110
 Pro Pro Gly Ala Ser Lys Gly Gly Arg Thr Pro Pro Gln Gln Gly Gly
 115 120 125
 Arg Ala Gly Met Gly Arg Ala Ser Arg Ser Trp Glu Gly Ser Pro Gly
 130 135 140
 Glu Gln Pro Arg Gly Gly Gly Ala Gly Gly Arg Gly Arg Arg Gly Arg
 145 150 155 160
 Gly Arg Gly Ser Pro His Leu Ser Gly Ala Gly Asp Thr Ser Ile Ser
 165 170 175
 Asp Arg Lys Ser Lys Glu Trp Glu Glu Arg Arg Arg Gln Asn Ile Glu
 180 185 190
 Lys Met Asn Glu Glu Met Glu Lys Ile Ala Glu Tyr Glu Arg Asn Gln
 195 200 205
 Arg Glu Gly Val Leu Glu Pro Asn Pro Val Arg Asn Phe Leu Asp Asp
 210 215 220
 Pro Arg Arg Arg Ser Gly Pro Leu Glu Glu Ser Glu Arg Asp Arg Arg
 225 230 235 240
 Glu Glu Ser Arg Arg His Gly Arg Asn Trp Gly Gly Pro Asp Phe Glu
 245 250 255
 Arg Val Arg Cys Gly Leu Glu His Glu Arg Gln Gly Arg Arg Ala Gly
 260 265 270
 Leu Gly Ser Ala Gly Asp Met Thr Leu Ser Met Thr Gly Arg Glu Arg
 275 280 285
 Ser Glu Tyr Leu Arg Trp Lys Gln Glu Arg Glu Lys Ile Asp Gln Glu
 290 295 300
 Arg Leu Gln Arg His Arg Lys Pro Thr Gly Gln Trp Arg Arg Glu Trp
 305 310 315 320
 Asp Ala Glu Lys Thr Asp Gly Met Phe Lys Asp Gly Pro Val Pro Ala
 325 330 335
 His Glu Pro Ser His Arg Tyr Asp Asp Gln Ala Trp Ala Arg Pro Pro
 340 345 350
 Lys Pro Pro Thr Phe Gly Glu Phe Leu Ser Gln His Lys Ala Glu Ala
 355 360 365
 Ser Ser Arg Arg Arg Arg Lys Ser Ser Arg Pro Gln Ala Lys Ala Ala
 370 375 380
 Pro Arg Ala Tyr Ser Asp His Asp Asp Arg Trp Glu Thr Lys Glu Gly
 385 390 395 400
 Ala Ala Ser Pro Ala Pro Glu Thr Pro Gln Pro Thr Ser Pro Glu Thr
 405 410 415
 Ser Pro Lys Glu Thr Pro Met Gln Pro Pro Glu Ile Pro Ala Pro Ala
 420 425 430
 His Arg Pro Pro Glu Asp Glu Gly Glu Glu Asn Glu Gly Glu Glu Asp
 435 440 445
 Glu Glu Trp Glu Asp Ile Ser Glu Asp Glu Glu Glu Glu Glu Ile Glu
 450 455 460
 Val Glu Glu Gly Asp Glu Glu Glu Pro Ala Gln Asp His Gln Ala Pro

465 470 475 480
 Glu Ala Ala Pro Thr Gly Ile Pro Cys Ser Glu Gln Ala His Gly Val
 485 490 495
 Pro Phe Ser Pro Glu Glu Pro Leu Leu Glu Pro Gln Ala Pro Gly Thr
 500 505 510
 Pro Ser Ser Pro Phe Ser Pro Pro Ser Gly His Gln Pro Val Ser Asp
 515 520 525
 Trp Gly Glu Glu Val Glu Leu Asn Ser Pro Arg Thr Thr His Leu Ala
 530 535 540
 Gly Ala Leu Ser Pro Gly Glu Ala Trp Pro Phe Glu Ser Val
 545 550 555 558

<210> 3569

<211> 304

<212> PRT

<213> Homo sapiens

<400> 3569

Met Gly Arg Val Gly Arg Ala Gly Val Gln Leu Gly Arg Arg Arg Thr
 1 5 10 15
 Thr Trp Ala Ala Glu Arg Thr Gly Gln Ala Ala Ala Gly Gly Pro Gly
 20 25 30
 Arg Ala Leu Arg Gly Gln Arg Pro Asp Leu Arg Ser Gly Gly Ala Ala
 35 40 45
 Asp Ser Pro Ala Ala Gly Arg Gly Glu Leu Tyr Cys Gly Val Leu Pro
 50 55 60
 Arg Ser Pro Trp Phe Leu Ser Glu Arg Arg Arg Gln Met Ala Asp Phe
 65 70 75 80
 Asp Thr Tyr Asp Asp Arg Ala Tyr Ser Ser Phe Gly Gly Gly Arg Gly
 85 90 95
 Ser Arg Gly Ser Ala Gly Gly His Gly Ser Arg Ser Gln Lys Glu Leu
 100 105 110
 Pro Thr Glu Pro Pro Tyr Thr Ala Tyr Val Gly Asn Leu Pro Phe Asn
 115 120 125
 Thr Val Gln Gly Asp Ile Asp Ala Ile Phe Lys Asp Leu Ser Ile Arg
 130 135 140
 Ser Val Arg Leu Val Arg Asp Lys Asp Thr Asp Lys Phe Lys Gly Phe
 145 150 155 160
 Cys Tyr Val Glu Phe Asp Glu Val Asp Ser Leu Lys Glu Ala Leu Thr
 165 170 175
 Tyr Asp Gly Ala Leu Leu Gly Asp Arg Ser Leu Arg Val Asp Ile Ala
 180 185 190
 Glu Gly Arg Lys Gln Asp Lys Gly Gly Phe Gly Phe Arg Lys Gly Gly
 195 200 205
 Pro Asp Asp Arg Gly Phe Arg Asp Asp Phe Leu Gly Gly Arg Gly Gly
 210 215 220
 Ser Arg Pro Gly Asp Arg Arg Thr Gly Pro Pro Met Gly Ser Arg Phe
 225 230 235 240
 Arg Asp Gly Pro Pro Leu Arg Gly Ser Asn Met Asp Phe Arg Glu Pro
 245 250 255
 Thr Glu Glu Glu Arg Ala Gln Arg Pro Arg Leu Gln Leu Lys Pro Arg
 260 265 270
 Thr Val Ala Thr Pro Leu Asn Gln Val Ala Asn Pro Asn Ser Ala Ile
 275 280 285
 Phe Gly Gly Ala Arg Pro Arg Glu Glu Val Val Gln Lys Glu Gln Glu
 290 295 300 304

<210> 3570
 <211> 304
 <212> PRT
 <213> Homo sapiens

<400> 3570
 Met Gly Arg Val Gly Arg Ala Gly Val Gln Leu Gly Arg Arg Arg Thr
 1 5 10 15
 Thr Trp Ala Ala Glu Arg Thr Gly Gln Ala Ala Ala Gly Gly Pro Gly
 20 25 30
 Arg Ala Leu Arg Gly Gln Arg Pro Asp Leu Arg Ser Gly Gly Ala Ala
 35 40 45
 Asp Ser Pro Ala Ala Gly Arg Gly Glu Leu Tyr Cys Gly Val Leu Pro
 50 55 60
 Arg Ser Pro Trp Phe Leu Ser Glu Arg Arg Arg Gln Met Ala Asp Phe
 65 70 75 80
 Asp Thr Tyr Asp Asp Arg Ala Tyr Ser Ser Phe Gly Gly Gly Arg Gly
 85 90 95
 Ser Arg Gly Ser Ala Gly Gly His Gly Ser Arg Ser Gln Lys Glu Leu
 100 105 110
 Pro Thr Glu Pro Pro Tyr Thr Ala Tyr Val Gly Asn Leu Pro Phe Asn
 115 120 125
 Thr Val Gln Gly Asp Ile Asp Ala Ile Phe Lys Asp Leu Ser Ile Arg
 130 135 140
 Ser Val Arg Leu Val Arg Asp Lys Asp Thr Asp Lys Phe Lys Gly Phe
 145 150 155 160
 Cys Tyr Val Glu Phe Asp Glu Val Asp Ser Leu Lys Glu Ala Leu Thr
 165 170 175
 Tyr Asp Gly Ala Leu Leu Gly Asp Arg Ser Leu Arg Val Asp Ile Ala
 180 185 190
 Glu Gly Arg Lys Gln Asp Lys Gly Gly Phe Gly Phe Arg Lys Gly Gly
 195 200 205
 Pro Asp Asp Arg Gly Phe Arg Asp Asp Phe Leu Gly Gly Arg Gly Gly
 210 215 220
 Ser Arg Pro Gly Asp Arg Arg Thr Gly Pro Pro Met Gly Ser Arg Phe
 225 230 235 240
 Arg Asp Gly Pro Pro Leu Arg Gly Ser Asn Met Asp Phe Arg Glu Pro
 245 250 255
 Thr Glu Glu Glu Arg Ala Gln Arg Pro Arg Leu Gln Leu Lys Pro Arg
 260 265 270
 Thr Val Ala Thr Pro Leu Asn Gln Val Ala Asn Pro Asn Ser Ala Ile
 275 280 285
 Phe Gly Gly Ala Arg Pro Arg Glu Glu Val Val Gln Lys Glu Gln Glu
 290 295 300 304

<210> 3571
 <211> 34
 <212> PRT
 <213> Homo sapiens

<400> 3571
 Arg His Phe Phe Gly Asn Leu Cys Ala Met Arg Ala Lys Trp Arg Lys
 1 5 10 15
 Lys Arg Met Arg Arg Leu Lys Arg Lys Arg Arg Lys Met Arg Gln Arg
 20 25 30
 Ser Lys
 34

<210> 3572
 <211> 399
 <212> PRT
 <213> Homo sapiens

<400> 3572
 Gln Ser Glu Pro His Arg Lys Val Arg Val Asp Pro Pro Val Arg Asp
 1 5 10 15
 Arg Pro Pro Pro His Pro Pro Pro Leu Leu Val Gln Arg Ala Leu Pro
 20 25 30
 Gly Gln Gly Gln Ala Glu Gly Ser Asp Gly Ala Asp Gly Ala Lys Arg
 35 40 45
 Arg Ala Met Ala His Gln Thr Gly Ile His Ala Thr Glu Glu Leu Lys
 50 55 60
 Glu Phe Phe Ala Lys Ala Arg Ala Gly Ser Val Arg Leu Ile Lys Val
 65 70 75 80
 Val Ile Glu Asp Glu Gln Leu Val Leu Gly Ala Ser Gln Glu Pro Val
 85 90 95
 Gly Arg Trp Asp Gln Asp Tyr Asp Arg Ala Val Leu Pro Leu Leu Asp
 100 105 110
 Ala Gln Gln Pro Cys Tyr Leu Leu Tyr Arg Leu Asp Ser Gln Asn Ala
 115 120 125
 Gln Gly Phe Glu Trp Leu Phe Leu Ala Trp Ser Pro Asp Asn Ser Pro
 130 135 140
 Val Arg Leu Lys Met Leu Tyr Ala Ala Thr Arg Ala Thr Val Lys Lys
 145 150 155 160
 Glu Phe Gly Gly Gly His Ile Lys Asp Glu Leu Phe Gly Thr Val Lys
 165 170 175
 Asp Asp Leu Ser Phe Ala Gly Tyr Gln Lys His Leu Ser Ser Cys Ala
 180 185 190
 Ala Pro Ala Pro Leu Thr Ser Ala Glu Arg Glu Leu Gln Gln Ile Arg
 195 200 205
 Ile Asn Glu Val Lys Thr Glu Ile Ser Val Glu Ser Lys His Gln Thr
 210 215 220
 Leu Gln Gly Leu Ala Phe Pro Leu Gln Pro Glu Ala Gln Arg Ala Leu
 225 230 235 240
 Gln Gln Leu Lys Gln Lys Met Val Asn Tyr Ile Gln Met Lys Leu Asp
 245 250 255
 Leu Glu Arg Glu Thr Ile Glu Leu Val His Thr Glu Pro Thr Asp Val
 260 265 270
 Ala Gln Leu Pro Ser Arg Val Pro Arg Asp Ala Ala Arg Tyr His Phe
 275 280 285
 Phe Leu Tyr Lys His Thr His Glu Gly Asp Pro Leu Glu Ser Val Val
 290 295 300
 Phe Ile Tyr Ser Met Pro Gly Tyr Lys Cys Ser Ile Lys Glu Arg Met
 305 310 315 320
 Leu Tyr Ser Ser Cys Lys Ser Arg Leu Leu Asp Ser Val Glu Gln Asp
 325 330 335
 Phe His Leu Glu Ile Ala Lys Lys Ile Glu Ile Gly Asp Gly Ala Glu
 340 345 350
 Leu Thr Ala Glu Phe Leu Tyr Asp Glu Val His Pro Lys Gln His Ala
 355 360 365
 Phe Lys Gln Ala Phe Ala Lys Pro Lys Gly Pro Gly Gly Lys Arg Gly
 370 375 380
 His Lys Arg Leu Ile Arg Gly Pro Gly Glu Asn Gly Asp Asp Ser
 385 390 395 399

<210> 3573
 <211> 607

<212> PRT

<213> Homo sapiens

<400> 3573

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Pro His Cys Glu Pro Asn Pro Gly Ala Gly Ala Met Val Leu Leu His
 1          5          10          15
Val Leu Phe Glu His Ala Val Gly Tyr Ala Leu Leu Ala Leu Lys Glu
          20          25          30
Val Glu Glu Ile Ser Leu Leu Gln Pro Gln Val Glu Glu Ser Val Leu
          35          40          45
Asn Leu Gly Lys Phe His Ser Ile Val Arg Leu Val Ala Phe Cys Pro
          50          55          60
Phe Ala Ser Ser Gln Val Ala Leu Glu Asn Ala Asn Ala Val Ser Glu
          65          70          75          80
Gly Val Val His Glu Asp Leu Arg Leu Leu Leu Glu Thr His Leu Pro
          85          90          95
Ser Lys Lys Lys Lys Val Leu Leu Gly Val Gly Asp Pro Lys Ile Gly
          100          105          110
Ala Ala Ile Gln Glu Glu Leu Gly Tyr Asn Cys Gln Thr Gly Gly Val
          115          120          125
Ile Ala Glu Ile Leu Arg Gly Val Arg Leu His Phe His Asn Leu Val
          130          135          140
Lys Gly Leu Thr Asp Leu Ser Ala Cys Lys Ala Gln Leu Gly Leu Gly
          145          150          155          160
His Ser Tyr Ser Arg Ala Lys Val Lys Phe Asn Val Asn Arg Val Asp
          165          170          175
Asn Met Ile Ile Gln Ser Ile Ser Leu Leu Asp Gln Leu Asp Lys Asp
          180          185          190
Ile Asn Thr Phe Ser Met Arg Val Arg Glu Trp Tyr Gly Tyr His Phe
          195          200          205
Pro Glu Leu Val Lys Ile Ile Asn Asp Asn Ala Thr Tyr Cys Arg Leu
          210          215          220
Ala Gln Phe Ile Gly Asn Arg Arg Glu Leu Asn Glu Asp Lys Leu Glu
          225          230          235          240
Lys Leu Glu Glu Leu Thr Met Asp Gly Ala Lys Ala Lys Ala Ile Leu
          245          250          255
Asp Ala Ser Arg Ser Ser Met Gly Met Asp Ile Ser Ala Ile Asp Leu
          260          265          270
Ile Asn Ile Glu Ser Phe Ser Ser Arg Val Val Ser Leu Ser Glu Tyr
          275          280          285
Arg Gln Ser Leu His Thr Tyr Leu Arg Ser Lys Met Ser Gln Val Ala
          290          295          300
Pro Ser Leu Ser Ala Leu Ile Gly Glu Ala Val Gly Ala Arg Leu Ile
          305          310          315          320
Ala His Ala Gly Ser Leu Thr Asn Leu Ala Lys Tyr Pro Ala Ser Thr
          325          330          335
Val Gln Ile Leu Gly Ala Glu Lys Ala Leu Phe Arg Ala Leu Lys Thr
          340          345          350
Arg Gly Asn Thr Pro Lys Tyr Gly Leu Ile Phe His Ser Thr Phe Ile
          355          360          365
Gly Arg Ala Ala Ala Lys Asn Lys Gly Arg Ile Ser Arg Tyr Leu Ala
          370          375          380
Asn Lys Cys Ser Ile Ala Ser Arg Ile Asp Cys Phe Ser Glu Val Pro
          385          390          395          400
Thr Ser Val Phe Gly Glu Lys Leu Arg Glu Gln Val Glu Glu Arg Leu
          405          410          415
Ser Phe Tyr Glu Thr Gly Glu Ile Pro Arg Lys Asn Leu Asp Val Met
          420          425          430
Lys Glu Ala Met Val Gln Ala Glu Ala Glu Glu Ala Ala Ala Glu Ile
          435          440          445
Thr Arg Lys Leu Glu Lys Gln Glu Lys Lys Arg Leu Lys Lys Glu Lys
          450          455          460
Lys Arg Leu Ala Ala Leu Ala Leu Ala Ser Ser Glu Asn Ser Ser Ser

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465		470		475		480									
Thr	Pro	Glu	Glu	Cys	Glu	Glu	Thr	Ser	Glu	Lys	Pro	Lys	Lys	Lys	Lys
				485					490					495	
Lys	Gln	Lys	Pro	Gln	Glu	Val	Pro	Gln	Glu	Asn	Gly	Met	Glu	Asp	Pro
			500					505					510		
Ser	Ile	Ser	Phe	Ser	Lys	Pro	Lys	Lys	Lys	Lys	Ser	Phe	Ser	Lys	Glu
		515					520					525			
Glu	Leu	Met	Ser	Ser	Asp	Leu	Glu	Glu	Thr	Ala	Gly	Ser	Thr	Ser	Ile
	530					535				540					
Pro	Lys	Arg	Lys	Lys	Ser	Thr	Pro	Lys	Glu	Glu	Thr	Val	Asn	Asp	Pro
545					550					555					560
Glu	Glu	Ala	Gly	His	Arg	Ser	Arg	Ser	Lys	Lys	Lys	Arg	Lys	Phe	Ser
				565					570					575	
Lys	Glu	Glu	Pro	Val	Ser	Ser	Gly	Pro	Glu	Glu	Ala	Val	Gly	Lys	Ser
			580				585						590		
Ser	Ser	Lys	Lys	Lys	Lys	Lys	Phe	His	Lys	Ala	Ser	Gln	Glu	Asp	
		595					600					605		607	

<210> 3574

<211> 582

<212> PRT

<213> Homo sapiens

<400> 3574

Cys	Gly	Asn	Glu	Arg	Thr	Ala	Arg	Leu	Trp	Val	Gln	Pro	Val	Val	Ser
1				5				10						15	
Thr	Met	Pro	Gln	Ala	Ser	Glu	His	Arg	Leu	Gly	Arg	Thr	Arg	Glu	Pro
			20					25					30		
Pro	Val	Asn	Ile	Gln	Pro	Arg	Val	Gly	Ser	Lys	Leu	Pro	Phe	Ala	Pro
		35					40					45			
Arg	Ala	Arg	Ser	Lys	Glu	Arg	Arg	Asn	Pro	Ala	Ser	Gly	Pro	Asn	Pro
50						55				60					
Met	Leu	Arg	Pro	Leu	Pro	Pro	Arg	Pro	Gly	Leu	Pro	Asp	Glu	Arg	Leu
65					70					75					80
Lys	Lys	Leu	Glu	Leu	Gly	Arg	Gly	Arg	Thr	Ser	Gly	Pro	Arg	Pro	Arg
				85					90					95	
Gly	Pro	Leu	Arg	Ala	Asp	His	Gly	Val	Pro	Leu	Pro	Gly	Ser	Pro	Pro
			100					105					110		
Pro	Thr	Val	Ala	Leu	Pro	Leu	Pro	Ser	Arg	Thr	Asn	Leu	Ala	Arg	Ser
	115						120					125			
Lys	Ser	Val	Ser	Ser	Gly	Asp	Leu	Arg	Pro	Met	Gly	Ile	Ala	Leu	Gly
130						135					140				
Gly	His	Arg	Gly	Thr	Gly	Glu	Leu	Gly	Ala	Ala	Leu	Ser	Arg	Leu	Ala
145					150				155						160
Leu	Arg	Pro	Glu	Pro	Pro	Thr	Leu	Arg	Arg	Ser	Thr	Ser	Leu	Arg	Arg
				165					170					175	
Leu	Gly	Gly	Phe	Pro	Gly	Pro	Pro	Thr	Leu	Phe	Ser	Ile	Arg	Thr	Glu
			180					185					190		
Pro	Pro	Ala	Ser	His	Gly	Ser	Phe	His	Met	Ile	Ser	Ala	Arg	Ser	Ser
	195						200					205			
Glu	Pro	Phe	Tyr	Ser	Asp	Asp	Lys	Met	Ala	His	His	Thr	Leu	Leu	Leu
210					215							220			
Gly	Ser	Gly	His	Val	Gly	Leu	Arg	Asn	Leu	Gly	Asn	Thr	Cys	Phe	Leu
225					230					235					240
Asn	Ala	Val	Leu	Gln	Cys	Leu	Ser	Ser	Thr	Arg	Pro	Leu	Arg	Asp	Phe
				245					250					255	
Cys	Leu	Arg	Arg	Asp	Phe	Arg	Gln	Glu	Val	Pro	Gly	Gly	Gly	Arg	Ala
			260					265					270		
Gln	Glu	Leu	Thr	Glu	Ala	Phe	Ala	Asp	Val	Ile	Gly	Ala	Leu	Trp	His
	275						280					285			
Pro	Asp	Ser	Cys	Glu	Ala	Val	Asn	Pro	Thr	Arg	Phe	Arg	Ala	Val	Phe

290	295	300
Gln Lys Tyr Val Pro Ser Phe Ser Gly Tyr Ser Gln Gln Asp Ala Gln		
305	310	315
Glu Phe Leu Lys Leu Leu Met Glu Arg Leu His Leu Glu Ile Asn Arg		320
	325	330
Arg Gly Arg Arg Ala Pro Pro Ile Leu Ala Asn Gly Pro Val Pro Ser		335
	340	345
Pro Pro Arg Arg Gly Gly Ala Leu Leu Glu Glu Pro Glu Leu Ser Asp		350
	355	360
Asp Asp Arg Ala Asn Leu Met Trp Lys Arg Tyr Leu Glu Arg Glu Asp		365
	370	375
Ser Lys Ile Val Asp Leu Phe Val Gly Gln Leu Lys Ser Cys Leu Lys		380
385	390	395
Cys Gln Ala Cys Gly Tyr Arg Ser Thr Thr Phe Glu Val Phe Cys Asp		400
	405	410
Leu Ser Leu Pro Ile Pro Lys Lys Gly Phe Ala Gly Gly Lys Val Ser		415
	420	425
Leu Arg Asp Cys Phe Asn Leu Phe Thr Lys Glu Glu Glu Leu Glu Ser		430
	435	440
Glu Asn Ala Pro Val Cys Asp Arg Cys Arg Gln Lys Thr Arg Ser Thr		445
	450	455
Lys Lys Leu Thr Val Gln Arg Phe Pro Arg Ile Leu Val Leu His Leu		460
465	470	475
Asn Arg Phe Ser Ala Ser Arg Gly Ser Ile Lys Lys Ser Ser Val Gly		480
	485	490
Val Asp Phe Pro Leu Gln Arg Leu Ser Leu Gly Asp Phe Ala Ser Asp		495
	500	505
Lys Ala Gly Ser Pro Val Tyr Gln Leu Tyr Ala Leu Cys Asn His Ser		510
	515	520
Gly Ser Val His Tyr Gly His Tyr Thr Ala Leu Cys Arg Cys Gln Thr		525
	530	535
Gly Trp His Val Tyr Asn Asp Ser Arg Val Ser Pro Val Ser Glu Asn		540
545	550	555
Gln Val Ala Ser Ser Glu Gly Tyr Val Leu Phe Tyr Gln Leu Met Gln		560
	565	570
Glu Pro Pro Arg Cys Leu		575
	580	582

<210> 3575

<211> 802

<212> PRT

<213> Homo sapiens

<400> 3575

Arg Glu Leu Asp Ser Leu Ala Asp Leu Pro Glu Arg Ile Lys Pro Pro	
1	5
Tyr Ala Asn Gly Leu Ser Thr Ser His Leu Arg Ser Ser Ser Val Glu	10
	15
	20
Asp Val Lys Leu Ile Ile Ser Glu Gly Arg Pro Thr Ile Glu Val Arg	25
	30
	35
Arg Cys Ser Met Pro Ser Val Ile Cys Glu His Thr Lys Gln Phe Gln	40
	45
	50
Thr Ile Ser Glu Glu Ser Asn Gln Gly Ser Leu Leu Thr Val Pro Gly	55
	60
	65
Asp Thr Ser Pro Ser Pro Lys Pro Glu Val Phe Ser Asn Val Pro Glu	70
	75
	80
	85
Arg Asp Leu Ser Asn Val Ser Asn Ile His Ser Ser Phe Ala Thr Ser	90
	95
	100
Pro Thr Gly Ala Ser Asn Ser Lys Tyr Val Ser Ala Asp Arg Asn Leu	105
	110
	115
Ile Lys Asn Thr Ala Pro Val Asn Thr Val Met Asp Ser Pro Val His	120
	125

130	135	140
Leu Glu Pro Ser Ser Gln Val Gly Val Ile Gln Asn Lys Ser Trp Glu		
145	150	155
Met Pro Val Asp Arg Leu Glu Thr Leu Ser Thr Arg Asp Phe Ile Cys		160
	165	170
Pro Asn Ser Asn Ile Pro Asp Gln Glu Ser Ser Leu Gln Ser Phe Cys		175
	180	185
Asn Ser Glu Asn Lys Val Leu Lys Glu Asn Ala Asp Phe Leu Ser Leu		190
	195	200
Arg Gln Thr Glu Leu Pro Gly Asn Ser Cys Ala Gln Asp Pro Ala Ser		205
	210	215
Phe Met Pro Pro Gln Gln Pro Cys Ser Phe Pro Ser Gln Ser Leu Ser		220
225	230	235
Asp Ala Glu Ser Ile Ser Lys His Met Ser Leu Ser Tyr Val Ala Asn		240
	245	250
Gln Glu Pro Gly Ile Leu Gln Gln Lys Asn Ala Val Gln Ile Ile Ser		255
	260	265
Ser Ala Leu Asp Thr Asp Asn Glu Ser Thr Lys Asp Thr Glu Asn Thr		270
	275	280
Phe Val Leu Gly Asp Val Gln Lys Thr Asp Ala Phe Val Pro Val Tyr		285
	290	295
Ser Asp Ser Thr Ile Gln Glu Ala Ser Pro Asn Phe Glu Lys Ala Tyr		300
305	310	315
Thr Leu Pro Val Leu Pro Ser Glu Lys Asp Phe Asn Gly Ser Asp Ala		320
	325	330
Ser Thr Gln Leu Asn Thr His Tyr Ala Phe Ser Lys Leu Thr Tyr Lys		335
	340	345
Ser Ser Ser Gly His Glu Val Glu Asn Ser Thr Thr Asp Thr Gln Val		350
	355	360
Ile Ser His Glu Lys Glu Asn Lys Leu Glu Ser Leu Val Leu Thr His		365
	370	375
Leu Ser Arg Cys Asp Ser Asp Leu Cys Glu Met Asn Ala Gly Met Pro		380
385	390	395
Lys Gly Asn Leu Asn Glu Gln Asp Pro Lys His Cys Pro Glu Ser Glu		400
	405	410
Lys Cys Leu Leu Ser Ile Glu Asp Glu Glu Ser Gln Gln Ser Ile Leu		415
	420	425
Ser Ser Leu Glu Asn His Ser Gln Gln Ser Thr Gln Pro Glu Met His		430
	435	440
Lys Tyr Gly Gln Leu Val Lys Val Glu Leu Glu Glu Asn Ala Glu Asp		445
	450	455
Asp Lys Thr Glu Asn Gln Ile Pro Gln Arg Met Thr Arg Asn Lys Ala		460
465	470	475
Asn Thr Met Ala Asn Gln Ser Lys Gln Ile Leu Ala Ser Cys Thr Leu		480
	485	490
Leu Ser Glu Lys Asp Ser Glu Ser Ser Pro Arg Gly Arg Ile Arg		495
	500	505
Leu Thr Glu Asp Asp Asp Pro Gln Ile His His Pro Arg Lys Arg Lys		510
	515	520
Val Ser Arg Val Pro Gln Pro Val Gln Val Ser Pro Ser Leu Leu Gln		525
	530	535
Ala Lys Glu Lys Thr Gln Gln Ser Leu Ala Ala Ile Val Asp Ser Leu		540
545	550	555
Lys Leu Asp Glu Ile Gln Pro Tyr Ser Ser Glu Arg Ala Asn Pro Tyr		560
	565	570
Phe Glu Tyr Leu His Ile Arg Lys Lys Ile Glu Glu Lys Arg Lys Leu		575
	580	585
Leu Cys Ser Val Ile Pro Gln Ala Pro Gln Tyr Tyr Asp Glu Tyr Val		590
	595	600
Thr Phe Asn Gly Ser Tyr Leu Leu Asp Gly Asn Pro Leu Ser Lys Ile		605
	610	615
Cys Ile Pro Thr Ile Thr Pro Pro Pro Ser Leu Ser Asp Pro Leu Lys		620
625	630	635
Glu Leu Phe Arg Gln Gln Glu Val Val Arg Met Lys Leu Arg Leu Gln		640

				645					650					655			
His	Ser	Ile	Glu	Arg	Glu	Lys	Leu	Ile	Val	Ser	Asn	Glu	Gln	Glu	Val		
			660					665					670				
Leu	Arg	Val	His	Tyr	Arg	Ala	Ala	Arg	Thr	Leu	Ala	Asn	Gln	Thr	Leu		
		675					680					685					
Pro	Phe	Ser	Ala	Cys	Thr	Val	Leu	Leu	Asp	Ala	Glu	Val	Tyr	Asn	Val		
	690					695					700						
Pro	Leu	Asp	Ser	Gln	Ser	Asp	Asp	Ser	Lys	Thr	Ser	Val	Arg	Asp	Arg		
705				710					715					720			
Phe	Asn	Ala	Arg	Gln	Phe	Met	Ser	Trp	Leu	Gln	Asp	Val	Asp	Asp	Lys		
		725						730					735				
Phe	Asp	Lys	Leu	Lys	Thr	Cys	Leu	Leu	Met	Arg	Gln	Gln	His	Glu	Ala		
		740						745					750				
Ala	Ala	Leu	Asn	Ala	Val	Gln	Arg	Leu	Glu	Trp	Gln	Leu	Lys	Leu	Gln		
	755					760					765						
Glu	Leu	Asp	Pro	Ala	Thr	Tyr	Lys	Ser	Ile	Ser	Ile	Tyr	Glu	Ile	Gln		
	770					775					780						
Glu	Phe	Tyr	Val	Pro	Leu	Val	Asp	Val	Asn	Asp	Asp	Phe	Glu	Leu	Thr		
785					790				795						800		
Pro	Ile																
	802																

<210> 3576

<211> 472

<212> PRT

<213> Homo sapiens

<400> 3576

Leu	Arg	Leu	Ala	Trp	His	Asp	Gly	Ala	Arg	Trp	Pro	Leu	Gly	Thr	Pro		
1				5					10					15			
Arg	Ala	Ala	Ala	Thr	Arg	Arg	Glu	Ala	Ala	Ala	Leu	Pro	Pro	Val	Thr		
		20					25						30				
Leu	Ala	Leu	Leu	Cys	Leu	Asp	Gly	Val	Phe	Leu	Ser	Ser	Ala	Glu	Asn		
	35						40					45					
Asp	Phe	Val	His	Arg	Ile	Gln	Glu	Glu	Leu	Asp	Arg	Phe	Leu	Leu	Gln		
	50					55					60						
Lys	Gln	Leu	Ser	Lys	Val	Leu	Leu	Phe	Pro	Pro	Leu	Ser	Ser	Arg	Leu		
65				70					75					80			
Arg	Tyr	Leu	Ile	His	Arg	Thr	Ala	Glu	Asn	Phe	Asp	Leu	Leu	Ser	Ser		
				85					90					95			
Phe	Ser	Val	Gly	Glu	Gly	Trp	Lys	Arg	Arg	Thr	Val	Ile	Cys	His	Gln		
		100						105					110				
Asp	Ile	Arg	Val	Pro	Ser	Ser	Asp	Gly	Leu	Ser	Gly	Pro	Cys	Arg	Ala		
	115						120					125					
Pro	Ala	Ser	Cys	Pro	Ser	Arg	Tyr	His	Gly	Pro	Arg	Pro	Ile	Ser	Asn		
	130					135					140						
Gln	Gly	Ala	Ala	Ala	Val	Pro	Arg	Gly	Ala	Arg	Ala	Gly	Arg	Trp	Tyr		
145					150				155					160			
Arg	Gly	Arg	Lys	Pro	Asp	Gln	Pro	Leu	Tyr	Val	Pro	Arg	Val	Leu	Arg		
			165					170						175			
Arg	Gln	Glu	Glu	Trp	Gly	Leu	Thr	Ser	Thr	Ser	Val	Leu	Lys	Arg	Glu		
		180					185						190				
Ala	Pro	Ala	Gly	Arg	Asp	Pro	Glu	Glu	Pro	Gly	Asp	Val	Gly	Ala	Gly		
	195					200						205					
Asp	Pro	Asn	Ser	Asp	Gln	Gly	Leu	Pro	Val	Leu	Met	Thr	Gln	Gly	Thr		
	210				215						220						
Glu	Asp	Leu	Lys	Gly	Pro	Gly	Gln	Arg	Cys	Glu	Asn	Glu	Pro	Leu	Leu		
225					230					235				240			
Asp	Pro	Val	Gly	Pro	Glu	Pro	Leu	Gly	Pro	Glu	Ser	Gln	Ser	Gly	Lys		
			245					250						255			
Gly	Asp	Met	Val	Glu	Met	Ala	Thr	Arg	Phe	Gly	Ser	Thr	Leu	Gln	Leu		

260	265	270
Asp Leu Glu Lys Gly Lys Glu Ser Leu Leu Glu Lys Arg Leu Val Ala		
275	280	285
Glu Glu Glu Glu Asp Glu Glu Glu Val Glu Glu Asp Gly Pro Ser Ser		
290	295	300
Cys Ser Glu Asp Asp Tyr Ser Glu Leu Leu Gln Glu Ile Thr Asp Asn		
305	310	315
Leu Thr Lys Lys Glu Ile Gln Ile Glu Lys Ile His Leu Asp Thr Ser		
325	330	335
Ser Phe Met Glu Glu Leu Pro Gly Glu Lys Asp Leu Ala His Val Val		
340	345	350
Glu Ile Tyr Asp Phe Glu Pro Ala Leu Lys Thr Glu Asp Leu Leu Ala		
355	360	365
Thr Phe Ser Glu Phe Gln Glu Lys Gly Phe Arg Ile Gln Trp Val Asp		
370	375	380
Asp Thr His Ala Leu Gly Ile Phe Pro Cys Arg Ala Ser Ala Ala Glu		
385	390	395
Ala Leu Thr Arg Glu Phe Ser Val Leu Lys Ile Arg Pro Leu Thr Gln		
405	410	415
Gly Thr Lys Gln Ser Lys Leu Lys Ala Leu Gln Arg Pro Lys Leu Leu		
420	425	430
Arg Leu Val Lys Glu Arg Pro Gln Thr Asn Ala Thr Val Ala Arg Arg		
435	440	445
Leu Val Ala Arg Ala Leu Gly Leu Gln His Lys Lys Lys Glu Arg Pro		
450	455	460
Ala Val Arg Gly Pro Leu Pro Pro		
465	470	472

<210> 3577

<211> 631

<212> PRT

<213> Homo sapiens

<400> 3577

Asp Thr Arg Thr Pro Gly Ser Leu Glu Met Gly Pro Leu Gln Phe Arg	
1 5 10 15	
Asp Val Ala Ile Glu Phe Ser Leu Glu Glu Trp His Cys Leu Asp Thr	
20 25 30	
Ala Gln Arg Asn Leu Tyr Arg Asn Val Met Leu Glu Asn Tyr Ser Asn	
35 40 45	
Leu Val Phe Leu Gly Ile Val Val Ser Lys Pro Asp Leu Ile Ala His	
50 55 60	
Leu Glu Gln Gly Lys Lys Pro Leu Thr Met Lys Arg His Glu Met Val	
65 70 75 80	
Ala Asn Pro Ser Gly Pro Val Ile Cys Ser His Phe Ala Gln Asp Leu	
85 90 95	
Trp Pro Glu Gln Asn Ile Lys Asp Ser Phe Gln Lys Val Ile Leu Arg	
100 105 110	
Arg Tyr Glu Lys Arg Gly His Gly Asn Leu Gln Leu Ile Lys Arg Cys	
115 120 125	
Glu Ser Val Asp Glu Cys Lys Val His Thr Gly Gly Tyr Asn Gly Leu	
130 135 140	
Asn Gln Cys Ser Thr Thr Thr Gln Ser Lys Val Phe Gln Cys Asp Lys	
145 150 155 160	
Tyr Gly Lys Val Phe His Lys Phe Ser Asn Ser Asn Arg His Asn Ile	
165 170 175	
Arg His Thr Glu Lys Lys Pro Phe Lys Cys Ile Glu Cys Gly Lys Ala	
180 185 190	
Phe Asn Gln Phe Ser Thr Leu Ile Thr His Lys Lys Ile His Thr Gly	
195 200 205	
Glu Lys Pro Tyr Ile Cys Glu Glu Cys Gly Lys Ala Phe Lys Tyr Ser	

210	215	220
Ser Ala Leu Asn Thr His	Lys Arg Ile His Thr	Gly Glu Lys Pro Tyr
225	230	235
Lys Cys Asp Lys Cys Asp	Lys Ala Phe Ile Ala	Ser Ser Thr Leu Ser
245	250	255
Lys His Glu Ile Ile His	Thr Gly Lys Lys Pro	Tyr Lys Cys Glu Glu
260	265	270
Cys Gly Lys Ala Phe Asn	Gln Ser Ser Thr Leu	Thr Lys His Lys Lys
275	280	285
Ile His Thr Gly Glu Lys	Pro Tyr Lys Cys Glu	Glu Glu Cys Gly Lys Ala
290	295	300
Phe Asn Gln Ser Ser Thr	Leu Thr Lys His Lys	Lys Ile His Thr Gly
305	310	315
Glu Lys Pro Tyr Val Cys	Glu Glu Cys Gly Lys	Ala Phe Lys Tyr Ser
325	330	335
Arg Ile Leu Thr Thr His	Lys Arg Ile His Thr	Gly Glu Lys Pro Tyr
340	345	350
Lys Cys Asn Lys Cys Gly	Lys Ala Phe Ile Ala	Ser Ser Thr Leu Ser
355	360	365
Arg His Glu Phe Ile His	Met Gly Lys Lys His	Tyr Lys Cys Glu Glu
370	375	380
Cys Gly Lys Ala Phe Ile	Trp Ser Ser Val Leu	Thr Arg His Lys Arg
385	390	395
Val His Thr Gly Glu Lys	Pro Tyr Lys Cys Glu	Glu Glu Cys Gly Lys Ala
405	410	415
Phe Lys Tyr Ser Ser Thr	Leu Ser Ser His Lys	Arg Ser His Thr Gly
420	425	430
Glu Lys Pro Tyr Lys Cys	Glu Glu Cys Gly Lys	Ala Phe Val Ala Ser
435	440	445
Ser Thr Leu Ser Lys His	Glu Ile Ile His Thr	Gly Lys Lys Pro Tyr
450	455	460
Lys Cys Glu Glu Cys Gly	Lys Ala Phe Asn Gln	Ser Ser Ser Leu Thr
465	470	475
Lys His Lys Lys Ile His	Thr Gly Glu Lys Pro	Tyr Lys Cys Glu Glu
485	490	495
Cys Gly Lys Ala Phe Asn	Gln Ser Ser Ser Leu	Thr Lys His Lys Lys
500	505	510
Ile His Thr Gly Glu Lys	Pro Tyr Lys Cys Glu	Glu Glu Cys Gly Lys Ala
515	520	525
Phe Asn Gln Ser Ser Thr	Leu Ile Lys His Lys	Lys Ile His Thr Arg
530	535	540
Glu Lys Pro Tyr Lys Cys	Glu Glu Cys Gly Lys	Ala Phe His Leu Ser
545	550	555
Thr His Leu Thr Thr His	Lys Ile Leu His Thr	Gly Glu Lys Pro Tyr
565	570	575
Arg Cys Arg Glu Cys Gly	Lys Ala Phe Asn His	Ser Ala Thr Leu Ser
580	585	590
Ser His Lys Lys Ile His	Ser Gly Glu Lys Pro	Tyr Glu Cys Asp Lys
595	600	605
Cys Gly Lys Ala Phe Ile	Ser Pro Ser Ser Leu	Ser Arg His Glu Ile
610	615	620
Ile His Thr Gly Glu Lys	Pro	
625	630	631

<210> 3578

<211> 427

<212> PRT

<213> Homo sapiens

<400> 3578

Arg Pro Arg Arg Arg Gly Thr His His Phe Ser Cys Val Leu Gly Ser

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<210> 3579
<211> 427
<212> PRT
<213> Homo sapiens
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5344


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<210> 3580
<211> 684
<212> PRT
<213> Homo sapiens
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5345

1	5	10	15
His Leu Pro Met Lys Leu Leu Arg Lys Lys Ile Glu Lys Arg Asn Leu			
20	25	30	
Lys Leu Arg Gln Arg Asn Leu Lys Phe Gln Gly Ala Ser Asn Leu Thr			
35	40	45	
Leu Ser Glu Thr Gln Asn Gly Asp Val Ser Glu Glu Thr Met Gly Ser			
50	55	60	
Arg Lys Val Lys Lys Ser Lys Gln Lys Pro Met Asn Val Gly Leu Ser			
65	70	75	80
Glu Thr Gln Asn Gly Gly Met Ser Gln Glu Ala Val Gly Asn Ile Lys			
85	90	95	
Val Thr Lys Ser Pro Gln Lys Ser Thr Val Leu Thr Asn Gly Glu Ala			
100	105	110	
Ala Met Gln Ser Ser Asn Ser Glu Ser Lys Lys Lys Lys Lys Lys			
115	120	125	
Arg Lys Met Val Asn Asp Ala Glu Pro Asp Thr Lys Lys Ala Lys Thr			
130	135	140	
Glu Asn Lys Gly Lys Ser Glu Glu Glu Ser Ala Glu Thr Thr Lys Glu			
145	150	155	160
Thr Glu Asn Asn Val Glu Lys Pro Asp Asn Asp Glu Asp Glu Ser Glu			
165	170	175	
Val Pro Ser Leu Pro Leu Gly Leu Thr Gly Ala Phe Glu Asp Thr Ser			
180	185	190	
Phe Ala Ser Leu Cys Asn Leu Val Asn Glu Asn Thr Leu Lys Ala Ile			
195	200	205	
Lys Glu Met Gly Phe Thr Asn Met Thr Glu Ile Gln His Lys Ser Ile			
210	215	220	
Arg Pro Leu Leu Glu Gly Arg Asp Leu Leu Ala Ala Ala Lys Thr Gly			
225	230	235	240
Ser Gly Lys Thr Leu Ala Phe Leu Ile Pro Ala Val Glu Leu Ile Val			
245	250	255	
Lys Leu Arg Phe Met Pro Arg Asn Gly Thr Gly Val Leu Ile Leu Ser			
260	265	270	
Pro Thr Arg Glu Leu Ala Met Gln Thr Phe Gly Val Leu Lys Glu Leu			
275	280	285	
Met Thr His His Val His Thr Tyr Gly Leu Ile Met Gly Gly Ser Asn			
290	295	300	
Arg Ser Ala Glu Ala Gln Lys Leu Gly Asn Gly Ile Asn Ile Ile Val			
305	310	315	320
Ala Thr Pro Gly Arg Leu Leu Asp His Met Gln Asn Thr Pro Gly Phe			
325	330	335	
Met Tyr Lys Asn Leu Gln Cys Leu Val Ile Asp Glu Ala Asp Arg Ile			
340	345	350	
Leu Asp Val Gly Phe Glu Glu Glu Leu Lys Gln Ile Ile Lys Leu Leu			
355	360	365	
Pro Thr Arg Arg Gln Thr Met Leu Phe Ser Ala Thr Gln Thr Arg Lys			
370	375	380	
Val Glu Asp Leu Ala Arg Ile Ser Leu Lys Lys Glu Pro Leu Tyr Val			
385	390	395	400
Gly Val Asp Asp Asp Lys Ala Asn Ala Thr Val Asp Gly Leu Glu Gln			
405	410	415	
Gly Tyr Val Val Cys Pro Ser Glu Lys Arg Phe Leu Leu Leu Phe Thr			
420	425	430	
Phe Leu Lys Lys Asn Arg Lys Lys Lys Leu Met Val Phe Phe Ser Ser			
435	440	445	
Cys Met Ser Val Lys Tyr His Tyr Glu Leu Leu Asn Tyr Ile Asp Leu			
450	455	460	
Pro Val Leu Ala Ile His Gly Lys Gln Lys Gln Asn Lys Arg Thr Thr			
465	470	475	480
Thr Phe Phe Gln Phe Cys Asn Ala Asp Ser Gly Thr Leu Leu Cys Thr			
485	490	495	
Asp Val Ala Ala Arg Gly Leu Asp Ile Pro Glu Val Asp Trp Ile Val			
500	505	510	
Gln Tyr Asp Pro Pro Asp Asp Pro Lys Glu Tyr Ile His Arg Val Gly			

515	520	525
Arg Thr Ala Arg Gly Leu Asn Gly Arg Gly His Ala Leu Leu Ile Leu		
530	535	540
Arg Pro Glu Glu Leu Gly Phe Leu Arg Tyr Leu Lys Gln Ser Lys Val		
545	550	555
Pro Leu Ser Glu Phe Asp Phe Ser Trp Ser Lys Ile Ser Asp Ile Gln		
565	570	575
Ser Gln Leu Glu Lys Leu Ile Glu Lys Asn Tyr Phe Leu His Lys Ser		
580	585	590
Ala Gln Glu Ala Tyr Lys Ser Tyr Ile Arg Ala Tyr Asp Ser His Ser		
595	600	605
Leu Lys Gln Ile Phe Asn Val Asn Asn Leu Asn Leu Pro Gln Val Ala		
610	615	620
Leu Ser Phe Gly Phe Lys Val Pro Pro Phe Val Asp Leu Asn Val Asn		
625	630	635
Ser Asn Glu Gly Lys Gln Lys Lys Arg Gly Gly Gly Gly Phe Gly		
645	650	655
Tyr Gln Lys Thr Lys Lys Val Glu Lys Ser Lys Ile Phe Lys His Ile		
660	665	670
Ser Lys Lys Ser Ser Asp Ser Arg Gln Phe Ser His		
675	680	684

<210> 3581
 <211> 143
 <212> PRT
 <213> Homo sapiens

<400> 3581

Leu Cys Arg Cys Ile Cys Ile Lys Asn Ile Thr Pro His Cys Leu Trp	
1 5 10 15	
Asp Lys Val Leu Ser Gln Phe Thr Tyr Ile Leu Asp Asn Leu Ser Asn	
20 25 30	
Phe Met Ser His His Pro His Ser Leu Arg Asn Ser Cys Leu Ile Arg	
35 40 45	
Met Asp Leu Leu Tyr Trp Gln Phe Thr Ile Tyr Thr Ile Thr Phe Cys	
50 55 60	
Phe Ser His Leu Ser Gly Arg Leu Thr Leu Ser Ala Gln His Ile Ser	
65 70 75 80	
His Arg Pro Cys Leu Leu Ser Tyr Ser Leu Leu Phe Trp Lys Val His	
85 90 95	
His Leu Phe Leu Glu Gly Phe Pro Cys Ser Pro Arg Leu Asp Glu Met	
100 105 110	
Ser Phe His Gln Phe Pro Gln His Pro Val His Val Ser Val Val His	
115 120 125	
Leu Pro Ile Val Tyr Lys Gly Ser Met Thr Gln Val Ser Pro His	
130 135 140 143	

<210> 3582
 <211> 315
 <212> PRT
 <213> Homo sapiens

<400> 3582

Thr Arg Gly Cys Gly Asn Lys Met Ala Gly Lys Lys Asn Val Leu Ser	
1 5 10 15	
Ser Leu Ala Val Tyr Ala Glu Asp Ser Glu Pro Glu Ser Asp Gly Glu	
20 25 30	
Ala Gly Ile Glu Ala Val Gly Ser Ala Ala Glu Glu Lys Gly Gly Leu	

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<210> 3583
<211> 315
<212> PRT
<213> Homo sapiens
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<400> 3583																
Thr	Arg	Gly	Cys	Gly	Asn	Lys	Met	Ala	Gly	Lys	Lys	Asn	Val	Leu	Ser	
1				5					10					15		
Ser	Leu	Ala	Val	Tyr	Ala	Glu	Asp	Ser	Glu	Pro	Glu	Ser	Asp	Gly	Glu	
			20					25					30			
Ala	Gly	Ile	Glu	Ala	Val	Gly	Ser	Ala	Ala	Glu	Glu	Lys	Gly	Gly	Leu	
		35					40					45				
Val	Ser	Asp	Ala	Tyr	Gly	Glu	Asp	Asp	Phe	Ser	Arg	Leu	Gly	Gly	Asp	
	50					55					60					
Glu	Asp	Gly	Tyr	Glu	Glu	Glu	Glu	Asp	Glu	Asn	Ser	Arg	Gln	Ser	Glu	
65					70					75					80	
Asp	Asp	Asp	Ser	Glu	Thr	Glu	Lys	Pro	Glu	Ala	Asp	Asp	Pro	Lys	Asp	
			85						90					95		
Asn	Thr	Glu	Ala	Glu	Lys	Arg	Asp	Pro	Gln	Glu	Leu	Val	Ala	Ser	Phe	
			100					105					110			
Ser	Glu	Arg	Val	Arg	Asn	Met	Ser	Pro	Asp	Glu	Ile	Lys	Ile	Pro	Pro	
		115				120						125				
Glu	Pro	Pro	Gly	Arg	Cys	Ser	Asn	His	Leu	Gln	Asp	Lys	Ile	Gln	Lys	
	130					135					140					
Leu	Tyr	Glu	Arg	Lys	Ile	Lys	Glu	Gly	Met	Asp	Met	Asn	Tyr	Ile	Ile	

145		150		155		160
Gln Arg Lys Lys Glu Phe Arg Asn Pro Ser Ile Tyr Glu Lys Leu Ile						
	165		170			175
Gln Phe Cys Ala Ile Asp Glu Leu Gly Thr Asn Tyr Pro Lys Asp Met						
	180		185			190
Phe Asp Pro His Gly Trp Ser Glu Asp Ser Tyr Tyr Glu Ala Leu Ala						
	195		200			205
Lys Ala Gln Lys Ile Glu Met Asp Lys Leu Glu Lys Ala Lys Lys Glu						
	210		215			220
Arg Thr Lys Ile Glu Phe Val Thr Gly Thr Lys Lys Gly Thr Thr Thr						
	225		230			235
Asn Ala Thr Ser Thr Thr Thr Thr Thr Ala Ser Thr Ala Val Ala Asp						
	245		250			255
Ala Gln Lys Arg Lys Ser Lys Trp Asp Ser Ala Ile Pro Val Thr Thr						
	260		265			270
Ile Ala Gln Pro Thr Ile Leu Thr Thr Thr Ala Thr Leu Pro Ala Val						
	275		280			285
Val Thr Val Thr Thr Ser Ala Ser Gly Ser Lys Thr Thr Val Ile Ser						
	290		295			300
Ala Val Gly Thr Ile Val Lys Lys Ala Lys Gln						
305		310		315		

<210> 3584

<211> 379

<212> PRT

<213> Homo sapiens

<400> 3584

Pro Gly Ser Thr Ile Ser Ser Arg Ala Asp Arg Leu Gly Ala Pro Val															
1		5		10											15
Leu Ala His Pro Lys Met Ala Glu Arg Gln Glu Glu Gln Arg Gly Ser															
	20		25												30
Pro Pro Leu Arg Ala Glu Gly Lys Ala Asp Ala Glu Val Lys Leu Ile															
	35		40												45
Leu Tyr His Trp Thr His Ser Phe Ser Ser Gln Lys Val Arg Leu Val															
	50		55												60
Ile Ala Glu Lys Ala Leu Lys Cys Glu Glu His Asp Val Ser Leu Pro															
	65		70												80
Leu Ser Glu His Asn Glu Pro Trp Phe Met Arg Leu Asn Ser Thr Gly															
	85		90												95
Glu Val Pro Val Leu Ile His Gly Glu Asn Ile Ile Cys Glu Ala Thr															
	100		105												110
Gln Ile Ile Asp Tyr Leu Glu Gln Thr Phe Leu Asp Glu Arg Thr Pro															
	115		120												125
Arg Leu Met Pro Asp Lys Glu Ser Met Tyr Tyr Pro Arg Val Gln His															
	130		135												140
Tyr Arg Glu Leu Leu Asp Ser Leu Pro Met Asp Ala Tyr Thr His Gly															
	145		150												160
Cys Ile Leu His Pro Glu Leu Thr Val Asp Ser Met Ile Pro Ala Tyr															
	165		170												175
Ala Thr Thr Arg Ile Arg Ser Gln Ile Gly Asn Thr Glu Ser Glu Leu															
	180		185												190
Lys Lys Leu Ala Glu Glu Asn Pro Asp Leu Gln Glu Ala Tyr Ile Ala															
	195		200												205
Lys Gln Lys Arg Leu Lys Ser Lys Leu Leu Asp His Asp Asn Val Lys															
	210		215												220
Tyr Leu Lys Lys Ile Leu Asp Glu Leu Glu Lys Val Leu Asp Gln Val															
	225		230												240
Glu Thr Glu Leu Pro Arg Arg Asn Glu Glu Thr Pro Glu Glu Gly Gln															
	245		250												255
Gln Pro Trp Leu Cys Gly Glu Ser Phe Thr Leu Ala Asp Val Ser Leu															

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<210> 3585
<211> 592
<212> PRT
<213> Homo sapiens
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5350

305					310					315				320	
Ser	His	Gly	Asn	Pro	Ile	Leu	Leu	Asn	Ser	Ser	Ile	Pro	Glu	Asp	Pro
				325					330					335	
Ser	Ile	Lys	Ala	Asp	Ile	Asn	Lys	Trp	Arg	Ile	Lys	Leu	Asp	Asn	Tyr
			340					345					350		
Ser	Thr	Gln	Glu	Leu	Gly	Lys	Thr	Ile	Val	Tyr	Leu	Asp	Gly	Ser	Ser
		355					360					365			
Gln	Ser	Cys	Arg	Phe	Arg	Glu	Cys	Asn	Met	Gly	Asn	Leu	Ile	Cys	Asp
	370					375				380					
Ala	Met	Ile	Asn	Asn	Asn	Leu	Arg	His	Thr	Asp	Glu	Met	Phe	Trp	Asn
385					390					395					400
His	Val	Ser	Met	Cys	Ile	Leu	Asn	Gly	Gly	Gly	Ile	Arg	Ser	Pro	Ile
			405					410						415	
Asp	Glu	Arg	Asn	Asn	Gly	Thr	Ile	Thr	Trp	Glu	Asn	Leu	Ala	Ala	Val
			420					425					430		
Leu	Pro	Phe	Gly	Gly	Thr	Phe	Asp	Leu	Val	Gln	Leu	Lys	Gly	Ser	Thr
	435						440					445			
Leu	Lys	Lys	Ala	Phe	Glu	His	Ser	Val	His	Arg	Tyr	Gly	Gln	Ser	Thr
	450					455					460				
Gly	Glu	Phe	Leu	Gln	Val	Gly	Gly	Ile	His	Val	Val	Tyr	Asp	Leu	Ser
465					470					475					480
Arg	Lys	Pro	Gly	Asp	Arg	Val	Val	Lys	Leu	Asp	Val	Leu	Cys	Thr	Lys
			485					490						495	
Cys	Arg	Val	Pro	Ser	Tyr	Asp	Pro	Leu	Lys	Met	Asp	Glu	Val	Tyr	Lys
		500						505					510		
Val	Ile	Leu	Pro	Asn	Phe	Leu	Ala	Asn	Gly	Gly	Asp	Gly	Phe	Gln	Met
	515						520					525			
Ile	Lys	Asp	Glu	Leu	Leu	Arg	His	Asp	Ser	Gly	Asp	Gln	Asp	Ile	Asn
	530					535					540				
Val	Val	Ser	Thr	Tyr	Ile	Ser	Lys	Met	Lys	Val	Ile	Tyr	Pro	Ala	Val
545					550					555					560
Glu	Gly	Arg	Ile	Lys	Phe	Ser	Thr	Gly	Ser	His	Cys	His	Gly	Ser	Phe
			565					570					575		
Ser	Leu	Ile	Phe	Leu	Ser	Leu	Trp	Ala	Val	Ile	Phe	Val	Leu	Tyr	Gln
			580					585					590		592

<210> 3586

<211> 172

<212> PRT

<213> Homo sapiens

<400> 3586

Leu	Ser	Asn	Lys	Asp	Val	Leu	Ser	Pro	Gln	Leu	Lys	Asp	Glu	Asn	Ser
1				5					10					15	
Lys	Leu	Arg	Arg	Lys	Leu	Asn	Glu	Val	Gln	Ser	Phe	Ser	Glu	Ala	Gln
		20						25					30		
Thr	Glu	Met	Val	Arg	Thr	Leu	Glu	Arg	Lys	Leu	Glu	Ala	Lys	Met	Ile
	35					40						45			
Lys	Glu	Glu	Ser	Asp	Tyr	His	Asp	Leu	Glu	Ser	Val	Val	Gln	Gln	Val
	50					55				60					
Glu	Gln	Asn	Leu	Glu	Leu	Met	Thr	Lys	Arg	Ala	Val	Lys	Ala	Glu	Asn
65					70					75					80
His	Val	Val	Lys	Leu	Lys	Gln	Glu	Ile	Ser	Leu	Leu	Gln	Ala	Gln	Val
			85					90						95	
Ser	Asn	Phe	Gln	Arg	Glu	Asn	Glu	Ala	Leu	Arg	Cys	Gly	Gln	Gly	Ala
		100						105					110		
Ser	Leu	Thr	Val	Val	Lys	Gln	Asn	Ala	Asp	Val	Ala	Leu	Gln	Asn	Leu
	115					120						125			
Arg	Val	Val	Met	Asn	Ser	Ala	Gln	Ala	Ser	Ile	Glu	Gln	Leu	Val	Ser

130	135	140
Gly Ala Glu Thr Leu Asn Leu Val Ala Glu Ile Leu Lys Ser Ile Asp		
145	150	155
Arg Ile Ser Glu Val Lys Asp Glu Glu Glu Asp Ser		160
	165	170
		172

<210> 3587

<211> 517

<212> PRT

<213> Homo sapiens

<400> 3587

Gly Cys Val Gly Arg Gly Leu Pro Leu Pro Pro Arg His Pro Thr Pro	
1 5 10 15	
Pro Ser Ser Ser Ser Ser Pro Phe Val Leu Leu Ala Phe Leu Leu Leu	
20 25 30	
Val Arg Leu Asp Pro Ala Val Ser Gly Lys Met Ala Ala Pro Arg Pro	
35 40 45	
Pro Pro Ala Arg Leu Ser Gly Val Met Val Pro Ala Pro Ile Gln Asp	
50 55 60	
Leu Glu Ala Leu Arg Ala Leu Thr Ala Leu Phe Lys Glu Gln Arg Asn	
65 70 75 80	
Arg Glu Thr Ala Pro Arg Thr Ile Phe Gln Arg Val Leu Asp Ile Leu	
85 90 95	
Lys Lys Ser Ser His Ala Val Glu Leu Ala Cys Arg Asp Pro Ser Gln	
100 105 110	
Val Glu Asn Leu Ala Ser Ser Leu Gln Leu Ile Thr Glu Cys Phe Arg	
115 120 125	
Cys Leu Arg Asn Ala Cys Ile Glu Cys Ser Val Asn Gln Asn Ser Ile	
130 135 140	
Arg Asn Leu Asp Thr Ile Gly Val Ala Val Asp Leu Ile Leu Leu Phe	
145 150 155 160	
Arg Glu Leu Arg Val Glu Gln Glu Ser Leu Leu Thr Ala Phe Arg Cys	
165 170 175	
Gly Leu Gln Phe Leu Gly Asn Ile Ala Ser Arg Asn Glu Asp Ser Gln	
180 185 190	
Ser Ile Val Trp Val His Ala Phe Pro Glu Leu Phe Leu Ser Cys Leu	
195 200 205	
Asn His Pro Asp Lys Lys Ile Val Ala Tyr Ser Ser Met Ile Leu Phe	
210 215 220	
Thr Ser Leu Asn His Glu Arg Met Lys Glu Leu Glu Glu Asn Leu Asn	
225 230 235 240	
Ile Ala Ile Asp Val Ile Asp Ala Tyr Gln Lys His Pro Glu Ser Glu	
245 250 255	
Trp Pro Phe Leu Ile Ile Thr Asp Leu Phe Leu Lys Ser Pro Glu Leu	
260 265 270	
Val Gln Ala Met Phe Pro Lys Leu Asn Asn Gln Glu Arg Val Thr Leu	
275 280 285	
Leu Asp Leu Met Ile Ala Lys Ile Thr Ser Asp Glu Pro Leu Thr Lys	
290 295 300	
Asp Asp Ile Pro Val Phe Leu Arg His Ala Glu Leu Ile Ala Ser Thr	
305 310 315 320	
Phe Val Asp Gln Cys Lys Thr Val Leu Lys Leu Ala Ser Glu Glu Pro	
325 330 335	
Pro Asp Asp Glu Glu Ala Leu Ala Thr Ile Arg Leu Leu Asp Val Leu	
340 345 350	
Cys Glu Met Thr Val Asn Thr Glu Leu Leu Gly Tyr Leu Gln Val Phe	
355 360 365	
Pro Gly Leu Leu Glu Arg Val Ile Asp Leu Leu Arg Val Ile His Val	
370 375 380	
Ala Gly Lys Glu Thr Thr Asn Ile Phe Ser Asn Cys Gly Cys Val Arg	

385		390		395		400									
Ala	Glu	Gly	Asp	Ile	Ser	Asn	Val	Ala	Asn	Gly	Phe	Lys	Ser	His	Leu
		405				410								415	
Ile	Arg	Leu	Ile	Gly	Asn	Leu	Cys	Tyr	Lys	Asn	Lys	Asp	Asn	Gln	Asp
		420				425								430	
Lys	Val	Asn	Glu	Leu	Asp	Gly	Ile	Pro	Leu	Ile	Leu	Asp	Asn	Cys	Asn
		435				440								445	
Ile	Ser	Asp	Ser	Asn	Pro	Phe	Leu	Thr	Gln	Trp	Val	Ile	Tyr	Ala	Ile
		450				455								460	
Arg	Asn	Leu	Thr	Glu	Asp	Asn	Ser	Gln	Asn	Gln	Asp	Leu	Ile	Ala	Lys
		465				470								475	
Met	Glu	Glu	Gln	Gly	Leu	Ala	Asp	Ala	Ser	Leu	Leu	Lys	Lys	Val	Gly
				485						490				495	
Phe	Glu	Val	Glu	Lys	Lys	Gly	Glu	Lys	Leu	Ile	Leu	Lys	Ser	Thr	Arg
		500						505						510	
Asp	Thr	Pro	Lys	Pro											
		515		517											

<210> 3588
 <211> 486
 <212> PRT
 <213> Homo sapiens

<400> 3588

Asp	Ser	Pro	Arg	Asn	Arg	Phe	Glu	Ile	Leu	Gly	Arg	Pro	Thr	Arg	Thr
1				5					10					15	
Pro	Thr	Arg	Pro	Gly	Pro	Arg	Pro	Ala	Met	Glu	Asp	Leu	Asp	Ala	Leu
			20					25						30	
Leu	Ser	Asp	Leu	Glu	Thr	Thr	Thr	Ser	His	Met	Pro	Arg	Ser	Gly	Ala
		35					40					45			
Pro	Lys	Glu	Arg	Pro	Ala	Glu	Pro	Leu	Thr	Pro	Pro	Pro	Ser	Tyr	Gly
		50				55					60				
His	Gln	Pro	Gln	Thr	Gly	Ser	Gly	Glu	Ser	Ser	Gly	Ala	Ser	Gly	Asp
		65			70						75				80
Lys	Asp	His	Leu	Tyr	Ser	Thr	Val	Cys	Lys	Pro	Arg	Ser	Pro	Lys	Pro
			85						90					95	
Ala	Ala	Pro	Ala	Ala	Pro	Pro	Phe	Ser	Ser	Ser	Ser	Gly	Val	Leu	Gly
			100					105						110	
Thr	Gly	Leu	Cys	Glu	Leu	Asp	Arg	Leu	Leu	Gln	Glu	Leu	Asn	Ala	Thr
		115						120						125	
Gln	Phe	Asn	Ile	Thr	Asp	Glu	Ile	Met	Ser	Gln	Phe	Pro	Ser	Ser	Lys
		130				135					140				
Val	Ala	Ser	Gly	Glu	Gln	Lys	Glu	Asp	Gln	Ser	Glu	Asp	Lys	Lys	Arg
		145				150				155					160
Pro	Ser	Leu	Pro	Ser	Ser	Pro	Ser	Pro	Gly	Leu	Pro	Lys	Ala	Ser	Ala
			165						170					175	
Thr	Ser	Ala	Thr	Leu	Glu	Leu	Asp	Arg	Leu	Met	Ala	Ser	Leu	Ser	Asp
			180					185						190	
Phe	Arg	Val	Gln	Asn	His	Leu	Pro	Ala	Ser	Gly	Pro	Thr	Gln	Pro	Pro
		195					200					205			
Val	Val	Ser	Ser	Thr	Asn	Glu	Gly	Ser	Pro	Ser	Pro	Pro	Glu	Pro	Thr
		210				215					220				
Gly	Lys	Gly	Ser	Leu	Asp	Thr	Met	Leu	Gly	Leu	Leu	Gln	Ser	Asp	Leu
		225			230					235					240
Ser	Arg	Arg	Gly	Val	Pro	Thr	Gln	Ala	Lys	Gly	Leu	Cys	Gly	Ser	Cys
			245						250					255	
Asn	Lys	Pro	Ile	Ala	Gly	Gln	Val	Val	Thr	Ala	Leu	Gly	Arg	Ala	Trp
			260					265						270	
His	Pro	Glu	His	Phe	Val	Cys	Gly	Gly	Cys	Ser	Thr	Ala	Leu	Gly	Gly
		275					280					285			
Ser	Ser	Phe	Phe	Glu	Lys	Asp	Gly	Ala	Pro	Phe	Cys	Pro	Glu	Cys	Tyr

290	295	300
Phe Glu Arg Phe Ser Pro Arg Cys Gly Phe Cys Asn Gln Pro Ile Arg		
305	310	315
His Lys Met Val Thr Ala Leu Gly Thr His Trp His Pro Glu His Phe		320
	325	330
Cys Cys Val Ser Cys Gly Glu Pro Phe Gly Asp Glu Gly Phe His Glu		335
	340	345
Arg Glu Gly Arg Pro Tyr Cys Arg Arg Asp Phe Leu Gln Leu Phe Ala		350
	355	360
Pro Arg Cys Gln Gly Cys Gln Gly Pro Ile Leu Asp Asn Tyr Ile Ser		365
	370	375
Ala Leu Ser Ala Leu Trp His Pro Asp Cys Phe Val Cys Arg Glu Cys		380
385	390	395
Phe Ala Pro Phe Ser Gly Gly Ser Phe Phe Glu His Glu Gly Arg Pro		400
	405	410
Leu Cys Glu Asn His Phe His Ala Arg Arg Gly Ser Leu Cys Ala Thr		415
	420	425
Cys Gly Leu Pro Val Thr Gly Arg Cys Val Ser Ala Leu Gly Arg Arg		430
	435	440
Phe His Pro Asp His Phe Thr Cys Thr Phe Cys Leu Arg Pro Leu Thr		445
	450	455
Lys Gly Ser Phe Gln Glu Arg Ala Gly Lys Pro Tyr Cys Gln Pro Cys		460
465	470	475
Phe Leu Lys Leu Phe Gly		480
	485	486

<210> 3589

<211> 2189

<212> PRT

<213> Homo sapiens

<400> 3589

Ser Pro Pro Lys Lys Ser Arg Lys Cys Asn Leu Ser Phe Arg Leu Ile	
1	5
Ser Ala Glu Arg Trp Arg Phe Phe Leu Leu Ile Leu Met Glu Met Pro	
	20
Arg Lys Pro Arg Leu Thr Leu Phe Val Gln Arg Arg Ile Glu Asn Ile	
	35
Ala Thr Glu Arg Glu Phe Asp Pro Glu Glu Phe Tyr Tyr Leu Leu Glu	
	50
Ala Ala Glu Gly His Ala Lys Glu Gly Gln Gly Ile Lys Thr Asp Ile	
65	70
Pro Arg Tyr Ile Ile Ser Gln Leu Gly Leu Asn Lys Asp Pro Leu Glu	
	85
Glu Met Ala His Leu Gly Asn Tyr Asp Ser Gly Thr Ala Glu Thr Pro	
	100
Glu Thr Asp Glu Ser Val Ser Ser Ser Asn Ala Ser Leu Lys Leu Arg	
	115
Arg Lys Pro Arg Glu Ser Asp Phe Glu Thr Ile Lys Leu Ile Ser Asn	
	130
Gly Ala Tyr Gly Ala Val Tyr Phe Val Arg His Lys Glu Ser Arg Gln	
145	150
Arg Phe Ala Met Lys Lys Ile Asn Lys Gln Asn Leu Ile Leu Arg Asn	
	165
Gln Ile Gln Gln Ala Phe Val Glu Arg Asp Ile Leu Thr Phe Ala Glu	
	180
Asn Pro Phe Val Val Ser Met Tyr Cys Ser Phe Glu Thr Arg Arg His	
	195
Leu Cys Met Val Met Glu Tyr Val Glu Gly Gly Asp Cys Ala Thr Leu	
	210
Met Lys Asn Met Gly Pro Leu Pro Val Asp Met Ala Arg Met Tyr Phe	

225		230		235		240
Ala Glu Thr Val	Leu Ala Leu Glu Tyr Leu His Asn Tyr Gly Ile Val					
	245		250		255	
His Arg Asp Leu Lys Pro Asp Asn Leu Leu Val Thr Ser Met Gly His						
	260		265		270	
Ile Lys Leu Thr Asp Phe Gly Leu Ser Lys Val Gly Leu Met Ser Met						
	275		280		285	
Thr Thr Asn Leu Tyr Glu Gly His Ile Glu Lys Asp Ala Arg Glu Phe						
	290		295		300	
Leu Asp Lys Gln Val Cys Gly Thr Pro Glu Tyr Ile Ala Pro Glu Val						
305		310		315		320
Ile Leu Arg Gln Gly Tyr Gly Lys Pro Val Asp Trp Trp Ala Met Gly						
	325		330		335	
Ile Ile Leu Tyr Glu Phe Leu Val Gly Cys Val Pro Phe Phe Gly Asp						
	340		345		350	
Thr Pro Glu Glu Leu Phe Gly Gln Val Ile Ser Asp Glu Ile Asn Trp						
	355		360		365	
Pro Glu Lys Asp Glu Ala Pro Pro Pro Asp Ala Gln Asp Leu Ile Thr						
	370		375		380	
Leu Leu Leu Arg Gln Asn Pro Leu Glu Arg Leu Gly Thr Gly Gly Ala						
385		390		395		400
Tyr Glu Val Lys Gln His Arg Phe Phe Arg Ser Leu Asp Trp Asn Ser						
	405		410		415	
Leu Leu Arg Gln Lys Ala Glu Phe Ile Pro Gln Leu Glu Ser Glu Asp						
	420		425		430	
Asp Thr Ser Tyr Phe Asp Thr Arg Ser Glu Lys Tyr His His Met Glu						
	435		440		445	
Thr Glu Glu Glu Asp Asp Thr Asn Asp Glu Asp Phe Asn Val Glu Ile						
	450		455		460	
Arg Gln Phe Ser Ser Cys Ser His Arg Phe Ser Lys Val Phe Ser Ser						
465		470		475		480
Ile Asp Arg Ile Thr Gln Asn Ser Ala Glu Glu Lys Glu Asp Ser Val						
	485		490		495	
Asp Lys Thr Lys Ser Thr Thr Leu Pro Ser Thr Glu Thr Leu Ser Trp						
	500		505		510	
Ser Ser Glu Tyr Ser Glu Met Gln Gln Leu Ser Thr Ser Asn Ser Ser						
	515		520		525	
Asp Thr Glu Ser Asn Arg His Lys Leu Ser Ser Gly Leu Leu Pro Lys						
	530		535		540	
Leu Ala Ile Ser Thr Glu Gly Glu Gln Asp Glu Ala Ala Ser Cys Pro						
545		550		555		560
Gly Asp Pro His Glu Glu Pro Gly Lys Pro Ala Leu Pro Pro Glu Glu						
	565		570		575	
Cys Ala Gln Glu Glu Pro Glu Val Thr Thr Pro Ala Ser Thr Ile Ser						
	580		585		590	
Ser Ser Thr Leu Ser Val Gly Ser Phe Ser Glu His Leu Asp Gln Ile						
	595		600		605	
Asn Gly Arg Ser Glu Cys Val Asp Ser Thr Asp Asn Ser Ser Lys Pro						
	610		615		620	
Ser Ser Glu Pro Ala Ser His Met Ala Arg Gln Arg Leu Glu Ser Thr						
625		630		635		640
Glu Lys Lys Lys Ile Ser Gly Lys Val Thr Lys Ser Leu Ser Ala Ser						
	645		650		655	
Ala Leu Ser Leu Met Ile Pro Gly Asp Met Phe Ala Val Ser Pro Leu						
	660		665		670	
Gly Ser Pro Met Ser Pro His Ser Leu Ser Ser Asp Pro Ser Ser Ser						
	675		680		685	
Arg Asp Ser Ser Pro Ser Arg Asp Ser Ser Ala Ala Ser Ala Ser Pro						
	690		695		700	
His Gln Pro Ile Val Ile His Ser Ser Gly Lys Asn Tyr Gly Phe Thr						
705		710		715		720
Ile Arg Ala Ile Arg Val Tyr Val Gly Asp Ser Asp Ile Tyr Thr Val						
	725		730		735	
His His Ile Val Trp Asn Val Glu Glu Gly Ser Pro Ala Cys Gln Ala						

5356

1250 1255 1260
Glu Asp Asn Leu Cys Pro Val Leu Lys Pro Lys Met Thr Ala Gly Ser
1265 1270 1275 1280
His Glu Cys Leu Pro Gly Asn Pro Val Arg Pro Thr Gly Gly Gln Gln
1285 1290 1295
Glu Pro Pro Pro Ala Ser Glu Ser Arg Ala Phe Val Ser Ser Thr His
1300 1305 1310
Ala Ala Gln Met Ser Ala Val Ser Phe Val Pro Leu Lys Ala Leu Thr
1315 1320 1325
Gly Arg Val Asp Ser Gly Thr Glu Lys Pro Gly Leu Val Ala Pro Glu
1330 1335 1340
Ser Pro Val Arg Lys Ser Pro Ser Glu Tyr Lys Leu Glu Gly Arg Ser
1345 1350 1355 1360
Val Ser Cys Leu Glu Pro Ile Glu Gly Thr Leu Asp Ile Ala Leu Leu
1365 1370 1375
Ser Gly Pro Gln Ala Ser Lys Thr Glu Leu Pro Ser Pro Glu Ser Ala
1380 1385 1390
Gln Ser Pro Ser Pro Ser Gly Asp Val Arg Ala Ser Val Pro Pro Val
1395 1400 1405
Leu Pro Ser Ser Ser Gly Lys Lys Asn Asp Thr Thr Ser Ala Arg Glu
1410 1415 1420
Leu Ser Pro Ser Ser Leu Lys Met Asn Lys Ser Tyr Leu Leu Glu Pro
1425 1430 1435 1440
Trp Phe Leu Pro Pro Ser Arg Gly Leu Gln Asn Ser Pro Ala Val Ser
1445 1450 1455
Leu Pro Asp Pro Glu Phe Lys Arg Asp Arg Lys Gly Pro His Pro Thr
1460 1465 1470
Ala Arg Ser Pro Gly Thr Val Met Glu Ser Asn Pro Gln Gln Arg Glu
1475 1480 1485
Gly Ser Ser Pro Lys His Gln Asp His Thr Thr Asp Pro Lys Leu Leu
1490 1495 1500
Thr Cys Leu Gly Gln Asn Leu His Ser Pro Asp Leu Ala Arg Pro Arg
1505 1510 1515 1520
Cys Pro Leu Pro Pro Glu Ala Ser Pro Ser Arg Glu Lys Pro Gly Leu
1525 1530 1535
Arg Glu Ser Ser Glu Arg Gly Pro Pro Thr Ala Arg Ser Glu Arg Ser
1540 1545 1550
Ala Ala Arg Ala Asp Thr Cys Arg Glu Pro Ser Met Glu Leu Cys Phe
1555 1560 1565
Pro Glu Thr Ala Lys Thr Ser Asp Asn Ser Lys Asn Leu Leu Ser Val
1570 1575 1580
Gly Arg Thr His Pro Asp Phe Tyr Thr Gln Thr Gln Ala Met Glu Lys
1585 1590 1595 1600
Ala Trp Ala Pro Gly Gly Lys Thr Asn His Lys Asp Gly Pro Gly Glu
1605 1610 1615
Ala Arg Pro Pro Pro Arg Asp Asn Ser Ser Leu His Ser Ala Gly Ile
1620 1625 1630
Pro Cys Glu Lys Glu Leu Gly Lys Val Arg Arg Gly Val Glu Pro Lys
1635 1640 1645
Pro Glu Ala Leu Leu Ala Arg Arg Ser Leu Gln Pro Pro Gly Ile Glu
1650 1655 1660
Ser Glu Lys Ser Glu Lys Leu Ser Ser Phe Pro Ser Leu Gln Lys Asp
1665 1670 1675 1680
Gly Ala Lys Glu Pro Glu Arg Lys Glu Gln Pro Leu Gln Arg His Pro
1685 1690 1695
Ser Ser Ile Pro Pro Pro Pro Leu Thr Ala Lys Asp Leu Ser Ser Pro
1700 1705 1710
Ala Ala Arg Gln His Cys Ser Ser Pro Ser His Ala Ser Gly Arg Glu
1715 1720 1725
Pro Gly Ala Lys Pro Ser Thr Ala Glu Pro Ser Ser Ser Pro Gln Asp
1730 1735 1740
Pro Pro Lys Pro Val Ala Ala His Ser Glu Ser Ser Ser His Lys Pro
1745 1750 1755 1760
Arg Pro Gly Pro Asp Pro Gly Pro Pro Lys Thr Lys His Pro Asp Arg

	1765		1770		1775
Ser	Leu	Ser	Ser	Gln	Lys
	1780		1785		1790
Pro	Ala	Thr	Gln	Ser	Leu
	1795		1800		1805
Ser	Lys	Ser	Gly	Pro	Asp
	1810		1815		1820
Lys	Ala	Ser	Asp	Gly	Ile
1825			1830		1835
Leu	His	Thr	Asp	Arg	Ala
	1845		1850		1855
Gly	Gly	Arg	Pro	Leu	Glu
	1860		1865		1870
Pro	Gly	His	Pro	Gly	Pro
	1875		1880		1885
Val	Gly	Glu	Lys	Gln	Thr
	1890		1895		1900
Val	Lys	Asp	Cys	Pro	Thr
1905			1910		1915
Asp	Lys	Ser	Pro	Ser	Gln
	1925		1930		1935
Gly	Lys	Lys	Cys	Thr	Glu
	1940		1945		1950
Leu	Glu	Ala	Gly	Leu	Ser
	1955		1960		1965
Ala	Glu	Arg	Pro	Ala	Ala
	1970		1975		1980
Gly	Lys	Gly	Pro	Gly	Pro
1985			1990		1995
Asn	Gly	Met	Lys	Arg	Ser
	2005		2010		2015
Ser	Thr	Ala	Leu	Pro	Glu
	2020		2025		2030
Glu	Thr	Arg	Ala	Gly	Val
	2035		2040		2045
Ser	Ser	Ala	Lys	Ala	Ala
	2050		2055		2060
Asn	Arg	Asp	His	Arg	Lys
2065			2070		2075
Met	Thr	Lys	Ser	Asp	Ser
	2085		2090		2095
Leu	Glu	Ser	His	His	Pro
	2100		2105		2110
Arg	Asp	Arg	Ala	Leu	Ser
	2115		2120		2125
Lys	Asp	Pro	Ala	Pro	Ala
	2130		2135		2140
Gly	Arg	Asp	Val	Thr	Lys
2145			2150		2155
Ile	Ser	Leu	Ser	Asn	Glu
	2165		2170		2175
Lys	Glu	Ser	Leu	Arg	Ser
	2180		2185		2189

<210> 3590

<211> 310

<212> PRT

<213> Homo sapiens

<400> 3590

Arg Ala Thr Thr Arg Pro Lys Asn Glu Val Gln Asp Tyr Val Ser Val

1				5					10					15		
Glu	Tyr	Leu	Ser	Pro	His	Met	Gly	Gly	Thr	Asp	Pro	Phe	Lys	Tyr	Ser	
			20					25					30			
Tyr	Pro	Pro	Leu	Val	Asp	Asp	Asp	Phe	Gln	Thr	Pro	Leu	Cys	Glu	Asn	
		35					40					45				
Gly	Pro	Ile	Thr	Ser	Glu	Asp	Glu	Thr	Ser	Ser	Lys	Glu	Asp	Ile	Glu	
	50					55					60					
Ser	Asp	Gly	Lys	Glu	Thr	Leu	Glu	Thr	Ile	Ser	Asn	Glu	Glu	Gln	Thr	
65					70					75					80	
Pro	Leu	Leu	Lys	Lys	Ile	Asn	Pro	Thr	Glu	Ser	Thr	Ser	Lys	Ala	Glu	
				85					90					95		
Glu	Asn	Glu	Lys	Val	Asp	Ser	Lys	Val	Lys	Ala	Phe	Lys	Lys	Pro	Leu	
		100						105					110			
Ser	Val	Phe	Lys	Gly	Pro	Leu	Leu	His	Ile	Ser	Pro	Ala	Glu	Glu	Leu	
	115						120					125				
Tyr	Phe	Gly	Ser	Thr	Glu	Ser	Gly	Glu	Lys	Lys	Thr	Leu	Ile	Val	Leu	
	130					135					140					
Thr	Asn	Val	Thr	Lys	Asn	Ile	Val	Ala	Phe	Lys	Val	Arg	Thr	Thr	Ala	
145					150					155					160	
Pro	Glu	Lys	Tyr	Arg	Val	Lys	Pro	Ser	Asn	Ser	Ser	Cys	Asp	Pro	Gly	
			165						170				175			
Ala	Ser	Val	Asp	Ile	Val	Val	Ser	Pro	His	Gly	Gly	Leu	Thr	Val	Ser	
		180						185					190			
Ala	Gln	Asp	Arg	Phe	Leu	Ile	Met	Ala	Ala	Glu	Met	Glu	Gln	Ser	Ser	
	195						200					205				
Gly	Thr	Gly	Pro	Ala	Glu	Leu	Thr	Gln	Phe	Trp	Lys	Glu	Val	Pro	Arg	
	210					215					220					
Asn	Lys	Val	Met	Glu	His	Arg	Leu	Arg	Cys	His	Thr	Val	Glu	Ser	Ser	
225					230					235					240	
Lys	Pro	Asn	Thr	Leu	Thr	Leu	Lys	Asp	Asn	Ala	Phe	Asn	Met	Ser	Asp	
			245						250				255			
Lys	Thr	Ser	Glu	Asp	Ile	Cys	Leu	Gln	Leu	Ser	Arg	Leu	Leu	Glu	Ser	
		260						265					270			
Asn	Arg	Lys	Leu	Glu	Asp	Gln	Val	Gln	Arg	Cys	Ile	Trp	Phe	Gln	Gln	
	275						280					285				
Leu	Leu	Leu	Ser	Leu	Thr	Met	Leu	Leu	Leu	Ala	Phe	Val	Thr	Ser	Phe	
	290					295					300					
Phe	Tyr	Leu	Leu	Tyr	Ser											
305					310											

<210> 3591

<211> 100

<212> PRT

<213> Homo sapiens

<400> 3591

Gly	Gly	Ser	Trp	Gly	Pro	Leu	Cys	Pro	Val	Ser	Pro	Ala	Met	Ser	Leu	
1				5					10					15		
Ser	Asp	Pro	Gly	Leu	Gly	Tyr	His	Pro	Thr	Cys	Trp	Thr	Leu	Arg	Trp	
		20						25					30			
Pro	Pro	Leu	Cys	Ser	Leu	His	Ala	Leu	His	Val	Phe	His	Cys	Leu	Phe	
		35					40					45				
Ser	Ser	Arg	Leu	Gly	Thr	Pro	Val	Ser	Pro	Arg	Leu	Ala	Met	Asp	Pro	
	50					55					60					
Asn	Cys	Ser	Cys	Glu	Ala	Gly	Gly	Ser	Cys	Ala	Cys	Ala	Gly	Ser	Cys	
65					70					75					80	
Lys	Cys	Lys	Lys	Cys	Lys	Cys	Thr	Ser	Cys	Lys	Lys	Ser	Cys	Cys	Ser	
				85					90					95		
Cys	Cys	Pro	Leu													
			100													

<210> 3592
 <211> 242
 <212> PRT
 <213> Homo sapiens

<400> 3592
 Gly Lys Thr Met Met Arg Lys Met Leu Leu Ala Ala Ala Leu Ser Val
 1 5 10 15
 Thr Ala Met Thr Ala His Ala Asp Tyr Gln Cys Ser Val Thr Pro Arg
 20 25 30
 Asp Asp Val Ile Val Ser Pro Gln Thr Val Gln Val Lys Gly Glu Asn
 35 40 45
 Gly Asn Leu Val Ile Thr Pro Asp Gly Asn Val Met Tyr Asn Gly Lys
 50 55 60
 Gln Tyr Ser Leu Asn Ala Ala Gln Arg Glu Gln Ala Lys Asp Tyr Gln
 65 70 75 80
 Ala Glu Leu Arg Ser Thr Leu Pro Trp Ile Asp Glu Gly Ala Lys Ser
 85 90 95
 Arg Val Glu Lys Ala Arg Ile Ala Leu Asp Lys Ile Ile Val Gln Glu
 100 105 110
 Met Gly Glu Ser Ser Lys Met Arg Ser Arg Leu Thr Lys Leu Asp Ala
 115 120 125
 Gln Val Lys Glu Gln Met Asn Arg Ile Ile Glu Thr Arg Ser Asp Gly
 130 135 140
 Leu Thr Phe His Tyr Lys Ala Ile Asp Gln Val Arg Ala Glu Gly Gln
 145 150 155 160
 Gln Leu Val Asn Gln Ala Met Gly Gly Ile Leu Gln Asp Ser Ile Asn
 165 170 175
 Glu Met Gly Ala Lys Ala Val Leu Lys Ser Gly Gly Asn Pro Leu Gln
 180 185 190
 Asn Val Leu Gly Ser Leu Gly Gly Leu Gln Ser Ser Ile Gln Thr Glu
 195 200 205
 Trp Lys Lys Gln Glu Lys Asp Phe Gln Gln Phe Gly Lys Asp Val Cys
 210 215 220
 Ser Arg Val Val Thr Leu Glu Asp Ser Arg Lys Ala Leu Val Gly Asn
 225 230 235 240
 Leu Lys
 242

<210> 3593
 <211> 611
 <212> PRT
 <213> Homo sapiens

<400> 3593
 Leu Ser Phe Glu Lys Val Asp Ile Gln Thr Asp Asn Asp Leu Thr Lys
 1 5 10 15
 Glu Met Tyr Glu Gly Lys Glu Asn Val Ser Phe Glu Leu Gln Arg Asp
 20 25 30
 Phe Ser Gln Glu Thr Asp Phe Ser Glu Ala Ser Leu Leu Glu Lys Gln
 35 40 45
 Gln Glu Val His Ser Ala Gly Asn Ile Lys Lys Glu Lys Ser Asn Thr
 50 55 60
 Ile Asp Gly Thr Val Lys Asp Glu Thr Ser Pro Val Glu Glu Cys Phe
 65 70 75 80
 Phe Ser Gln Ser Ser Asn Ser Tyr Gln Cys His Thr Ile Thr Gly Glu
 85 90 95
 Gln Pro Ser Gly Cys Thr Gly Leu Gly Lys Ser Ile Ser Phe Asp Thr

			100					105					110			
Lys	Leu	Val	Lys	His	Glu	Ile	Ile	Asn	Ser	Glu	Glu	Arg	Pro	Phe	Lys	
			115					120					125			
Cys	Glu	Glu	Leu	Val	Glu	Pro	Phe	Arg	Cys	Asp	Ser	Gln	Leu	Ile	Gln	
			130					135					140			
His	Gln	Glu	Asn	Asn	Thr	Glu	Glu	Lys	Pro	Tyr	Gln	Cys	Ser	Glu	Cys	
145					150					155					160	
Gly	Lys	Ala	Phe	Ser	Ile	Asn	Glu	Lys	Leu	Ile	Trp	His	Gln	Arg	Leu	
				165					170					175		
His	Ser	Gly	Glu	Lys	Pro	Phe	Lys	Cys	Val	Glu	Cys	Gly	Lys	Ser	Phe	
			180					185					190			
Ser	Tyr	Ser	Ser	His	Tyr	Ile	Thr	His	Gln	Thr	Ile	His	Ser	Gly	Glu	
			195					200					205			
Lys	Pro	Tyr	Gln	Cys	Lys	Met	Cys	Gly	Lys	Ala	Phe	Ser	Val	Asn	Gly	
			210					215					220			
Ser	Leu	Ser	Arg	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Gln	
225					230					235					240	
Cys	Lys	Glu	Cys	Gly	Asn	Gly	Phe	Ser	Cys	Ser	Ser	Ala	Tyr	Ile	Thr	
				245					250					255		
His	Gln	Arg	Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Asp	Cys	
			260					265					270			
Gly	Lys	Ala	Phe	Asn	Gly	Asn	Ala	Lys	Leu	Ile	Gln	His	Gln	Arg	Ile	
			275					280					285			
His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Asn	Glu	Cys	Gly	Lys	Gly	Phe	
			290					295					300			
Arg	Cys	Ser	Ser	Gln	Leu	Arg	Gln	His	Gln	Ser	Ile	His	Thr	Gly	Glu	
305					310					315					320	
Lys	Pro	Tyr	Gln	Cys	Lys	Glu	Cys	Gly	Lys	Gly	Phe	Asn	Asn	Asn	Thr	
				325					330					335		
Lys	Leu	Ile	Gln	His	Gln	Arg	Ile	His	Thr	Ala	Ser	Leu	Ala	Glu	Gln	
			340					345					350			
Leu	Phe	Lys	Ala	Ser	Gly	Asn	His	Pro	Asn	Trp	Gly	Cys	Cys	Leu	Thr	
			355					360					365			
Ile	Ser	Ser	Pro	Gly	Pro	Ser	Val	Tyr	Gly	Pro	Lys	Met	Asn	Met	Arg	
			370					375					380			
Gly	Ala	Pro	Asn	Ser	Arg	Leu	Ala	Gly	Gly	Arg	Glu	Lys	Arg	Thr	Gln	
385					390					395					400	
Asp	Thr	Asp	Phe	Gly	Gln	Cys	Ser	Phe	Leu	Pro	Ser	His	Ser	Pro	Ser	
				405					410					415		
Cys	Phe	Glu	Pro	Trp	Asn	Val	Thr	Asp	Tyr	Asp	Ser	Ser	Trp	Tyr	Arg	
			420					425					430			
Gln	Lys	Gln	Val	Leu	Ser	Gly	Val	Trp	Ser	Ser	Pro	Leu	Ser	Ile	Leu	
			435					440					445			
Lys	Leu	Pro	Arg	Thr	Leu	Ile	Arg	Ile	Ser	Ile	His	Ile	Gln	Glu	Met	
			450					455					460			
Asp	Thr	Pro	Gly	Glu	Met	Leu	Met	Thr	Gly	Arg	Gly	Ser	Leu	Gly	Pro	
465					470					475					480	
Thr	Leu	Thr	Thr	Glu	Ala	Pro	Ala	Ala	Ala	Gln	Pro	Gly	Lys	Gln	Gly	
				485					490					495		
Pro	Pro	Gly	Thr	Gly	Arg	Cys	Leu	Gln	Ala	Pro	Gly	Thr	Glu	Pro	Gly	
			500					505					510			
Glu	Gln	Thr	Pro	Glu	Gly	Ala	Arg	Glu	Leu	Ser	Pro	Leu	Gln	Glu	Ser	
			515					520					525			
Ser	Ser	Pro	Gly	Gly	Val	Lys	Ala	Glu	Glu	Glu	Gln	Arg	Ala	Gly	Ala	
			530					535					540			
Glu	Pro	Gly	Thr	Arg	Pro	Ser	Leu	Ala	Arg	Ser	Asp	Asp	Asn	Asp	His	
545					550					555					560	
Glu	Val	Gly	Ala	Leu	Gly	Leu	Gln	Gln	Gly	Lys	Ser	Pro	Gly	Ala	Gly	
				565					570					575		
Asn	Pro	Glu	Pro	Glu	Gln	Asp	Cys	Ala	Ala	Arg	Ala	Pro	Val	Arg	Ala	
			580					585					590			
Glu	Ala	Val	Arg	Arg	Met	Pro	Pro	Gly	Ala	Glu	Ala	Gly	Ser	Val	Val	
			595					600					605			
Leu	Asp	Asp														

610 611

<210> 3594
 <211> 73
 <212> PRT
 <213> Homo sapiens

<400> 3594
 Arg Ala Ala Met Met Asp Thr Ser Arg Val Gln Pro Ile Lys Leu Ala
 1 5 10 15
 Ile Val Ile Lys Val Leu Gly Arg Thr Gly Ser Gln Gly Gln Cys Thr
 20 25 30
 Gln Val Arg Val Glu Phe Met Asp Asp Thr Ser Arg Ser Ile Ile Arg
 35 40 45
 Ser Val Lys Gly Pro Val Arg Glu Gly Asp Val Leu Thr Leu Leu Glu
 50 55 60
 Ser Glu Arg Glu Ala Arg Arg Leu Arg
 65 70 73

<210> 3595
 <211> 301
 <212> PRT
 <213> Homo sapiens

<400> 3595
 Gly Arg Val Gly Thr Lys His Gln Met Ala Asp Asp Ala Gly Ala Ala
 1 5 10 15
 Gly Gly Pro Gly Gly Pro Gly Gly Pro Gly Met Gly Asn Arg Gly Gly
 20 25 30
 Phe Arg Gly Gly Phe Gly Ser Gly Ile Arg Gly Arg Gly Arg Gly Arg
 35 40 45
 Gly Arg Gly Arg Gly Arg Gly Arg Gly Ala Arg Gly Gly Lys Ala Glu
 50 55 60
 Asp Lys Glu Trp Met Pro Val Thr Lys Leu Gly Arg Leu Val Lys Asp
 65 70 75 80
 Met Lys Ile Lys Ser Leu Glu Glu Ile Tyr Leu Phe Ser Leu Pro Ile
 85 90 95
 Lys Glu Ser Glu Ile Ile Asp Phe Phe Leu Gly Ala Ser Leu Lys Asp
 100 105 110
 Glu Val Leu Lys Ile Met Pro Val Gln Lys Gln Thr Arg Ala Gly Gln
 115 120 125
 Arg Thr Arg Phe Lys Ala Phe Val Ala Ile Gly Asp Tyr Asn Gly His
 130 135 140
 Val Gly Leu Gly Val Lys Cys Ser Lys Glu Val Ala Thr Ala Ile Arg
 145 150 155 160
 Gly Ala Ile Ile Leu Ala Lys Leu Ser Ile Val Pro Val Arg Arg Gly
 165 170 175
 Tyr Trp Gly Asn Lys Ile Gly Lys Pro His Thr Val Pro Cys Lys Val
 180 185 190
 Thr Gly Arg Cys Gly Ser Val Leu Val Arg Leu Ile Pro Ala Pro Arg
 195 200 205
 Gly Thr Gly Ile Val Ser Ala Pro Val Pro Lys Lys Leu Leu Met Met
 210 215 220
 Ala Gly Ile Asp Asp Cys Tyr Thr Ser Ala Arg Gly Cys Thr Ala Thr
 225 230 235 240
 Leu Gly Asn Phe Ala Lys Ala Thr Phe Asp Ala Ile Ser Lys Thr Tyr
 245 250 255
 Ser Tyr Leu Thr Pro Asp Leu Trp Lys Glu Thr Val Phe Thr Lys Ser


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<210> 3596
<211> 951
<212> PRT
<213> Homo sapiens
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5363

385					390					395				400
Asn	Tyr	Lys	Asn	Val	Gly	Glu	Glu	Glu	Asp	Glu	Glu	Lys	Gly	Pro
				405					410					415
Glu	Asp	Ala	Gln	Glu	Asp	Ala	Glu	Lys	Ala	Lys	Gly	Thr	Glu	Gly
			420					425					430	
Ser	Lys	Gly	Ile	Lys	Thr	Ser	Gly	Glu	Ser	Glu	Glu	Ile	Glu	Met
		435					440					445		Val
Ile	Met	Glu	Arg	Ser	Lys	Leu	Ser	Glu	Leu	Ala	Ala	Ser	Thr	Ser
	450					455				460				Val
Gln	Glu	Gln	Asn	Thr	Thr	Asp	Glu	Glu	Lys	Ser	Ala	Ala	Ala	Thr
465					470					475				480
Ser	Glu	Ser	Thr	Gln	Trp	Ser	Arg	Pro	Phe	Leu	Asp	Met	Val	Tyr
				485					490					495
Ala	Leu	Asp	Ser	Pro	Asp	Asp	Asp	Tyr	His	Ala	Leu	Phe	Val	Leu
			500					505					510	Cys
Leu	Leu	Tyr	Ala	Met	Ser	His	Asn	Lys	Gly	Met	Asp	Pro	Glu	Lys
	515						520					525		Leu
Glu	Arg	Ile	Gln	Leu	Pro	Val	Pro	Asn	Ala	Ala	Glu	Lys	Thr	Thr
	530					535					540			Tyr
Asn	His	Pro	Leu	Ala	Glu	Arg	Leu	Ile	Arg	Ile	Met	Asn	Asn	Ala
545					550				555					560
Gln	Pro	Asp	Gly	Lys	Ile	Arg	Leu	Ala	Thr	Leu	Glu	Leu	Ser	Cys
			565						570					575
Leu	Leu	Lys	Gln	Gln	Val	Leu	Met	Ser	Ala	Gly	Cys	Ile	Met	Lys
			580					585					590	Asp
Val	His	Leu	Ala	Cys	Leu	Glu	Gly	Ala	Arg	Glu	Glu	Ser	Val	His
	595						600					605		Leu
Val	Arg	His	Phe	Tyr	Lys	Gly	Glu	Asp	Ile	Phe	Leu	Asp	Met	Phe
	610					615				620				Glu
Asp	Glu	Tyr	Arg	Ser	Met	Thr	Met	Lys	Pro	Met	Asn	Val	Glu	Tyr
625					630				635					640
Met	Met	Asp	Ala	Ser	Ile	Leu	Leu	Pro	Pro	Thr	Gly	Thr	Pro	Leu
			645						650					655
Gly	Ile	Asp	Phe	Val	Lys	Arg	Leu	Pro	Cys	Gly	Asp	Val	Glu	Lys
			660					665					670	Thr
Arg	Arg	Ala	Ile	Arg	Val	Phe	Phe	Met	Leu	Arg	Ser	Leu	Ser	Leu
	675					680						685		Gln
Leu	Arg	Gly	Glu	Pro	Glu	Thr	Gln	Leu	Pro	Leu	Thr	Arg	Glu	Glu
	690					695					700			Asp
Leu	Ile	Lys	Thr	Asp	Asp	Val	Leu	Asp	Leu	Asn	Asn	Ser	Asp	Leu
705					710				715					720
Ala	Cys	Thr	Val	Ile	Thr	Lys	Asp	Gly	Gly	Met	Val	Gln	Arg	Ser
			725						730					735
Ala	Val	Asp	Ile	Tyr	Gln	Met	Ser	Leu	Val	Glu	Pro	Asp	Val	Ser
			740					745					750	Arg
Leu	Gly	Trp	Gly	Val	Val	Lys	Phe	Ala	Gly	Leu	Leu	Gln	Asp	Met
	755						760					765		Gln
Val	Thr	Gly	Val	Glu	Asp	Asp	Ser	Arg	Ala	Leu	Asn	Ile	Thr	Ile
	770					775					780			His
Lys	Pro	Ala	Ser	Ser	Pro	His	Ser	Lys	Pro	Phe	Pro	Ile	Leu	Gln
785					790				795					800
Thr	Phe	Ile	Phe	Ser	Asp	His	Ile	Arg	Cys	Ile	Ile	Ala	Lys	Gln
			805					810						815
Leu	Ala	Lys	Gly	Arg	Ile	Gln	Ala	Arg	Arg	Met	Lys	Met	Gln	Arg
			820					825					830	Ile
Ala	Ala	Leu	Leu	Asp	Leu	Pro	Ile	Gln	Pro	Thr	Thr	Glu	Val	Leu
	835						840					845		Gly
Phe	Gly	Leu	Gly	Ser	Ser	Thr	Ser	Thr	Gln	His	Leu	Pro	Phe	Arg
	850					855				860				Phe
Tyr	Asp	Gln	Gly	Arg	Arg	Gly	Ser	Ser	Asp	Pro	Thr	Val	Gln	Arg
865					870				875					880
Val	Phe	Ala	Ser	Val	Asp	Lys	Val	Pro	Gly	Phe	Ala	Val	Ala	Gln
			885					890						895
Ile	Asn	Glu	His	Ser	Ser	Pro	Ser	Leu	Ser	Ser	Gln	Ser	Pro	Pro

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<211> 50
<212> PRT
<213> Homo sapiens
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<210> 3598
<211> 167
<212> PRT
<213> Homo sapiens
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<210> 3599
<211> 1301
<212> PRT
<213> Homo sapiens
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<400> 3599

Lys	Thr	Ile	Thr	Ala	Leu	Ala	Phe	Ser	Pro	Asp	Gly	Lys	Tyr	Leu	Val
1				5					10					15	
Thr	Gly	Glu	Ser	Gly	His	Met	Pro	Ala	Val	Arg	Val	Trp	Asp	Val	Ala
			20					25					30		
Glu	His	Ser	Gln	Val	Ala	Glu	Leu	Gln	Glu	His	Lys	Tyr	Gly	Val	Ala
		35				40					45				
Cys	Val	Ala	Phe	Ser	Pro	Ser	Ala	Lys	Tyr	Ile	Val	Ser	Val	Gly	Tyr
	50					55					60				
Gln	His	Asp	Met	Ile	Val	Asn	Val	Trp	Ala	Trp	Lys	Lys	Asn	Ile	Val
65				70						75				80	
Val	Ala	Ser	Asn	Lys	Val	Ser	Ser	Arg	Val	Thr	Ala	Val	Ser	Phe	Ser
			85					90						95	
Glu	Asp	Cys	Ser	Tyr	Phe	Val	Thr	Ala	Gly	Asn	Arg	His	Ile	Lys	Phe
		100						105					110		
Trp	Tyr	Leu	Asp	Asp	Ser	Lys	Thr	Ser	Lys	Val	Asn	Ala	Thr	Val	Pro
	115						120						125		
Leu	Leu	Gly	Arg	Ser	Gly	Leu	Leu	Gly	Glu	Leu	Arg	Asn	Asn	Leu	Phe
	130					135					140				
Thr	Asp	Val	Ala	Cys	Gly	Arg	Gly	Lys	Lys	Ala	Asp	Ser	Thr	Phe	Cys
145				150						155					160
Ile	Thr	Ser	Ser	Gly	Leu	Leu	Cys	Glu	Phe	Ser	Asp	Arg	Arg	Leu	Leu
			165					170						175	
Asp	Lys	Trp	Val	Glu	Leu	Arg	Val	Tyr	Pro	Glu	Val	Lys	Asp	Ser	Asn
		180						185					190		
Gln	Ala	Cys	Leu	Pro	Pro	Ser	Ser	Phe	Ile	Thr	Cys	Ser	Ser	Asp	Asn
	195						200						205		
Thr	Ile	Arg	Leu	Trp	Asn	Thr	Glu	Ser	Ser	Gly	Val	His	Gly	Ser	Thr
	210				215						220				
Leu	His	Arg	Asn	Ile	Leu	Ser	Ser	Asp	Leu	Ile	Lys	Ile	Ile	Tyr	Val
225			230						235					240	
Asp	Gly	Asn	Thr	Gln	Ala	Leu	Leu	Asp	Thr	Glu	Leu	Pro	Gly	Gly	Asp
		245						250					255		
Lys	Ala	Asp	Ala	Ser	Leu	Leu	Asp	Pro	Arg	Val	Gly	Ile	Arg	Ser	Val
		260					265						270		
Cys	Val	Ser	Pro	Asn	Gly	Gln	His	Leu	Ala	Ser	Gly	Asp	Arg	Met	Gly
	275						280				285				
Thr	Leu	Arg	Val	His	Glu	Leu	Gln	Ser	Leu	Ser	Glu	Met	Leu	Lys	Val
	290				295						300				
Glu	Ala	His	Asp	Ser	Glu	Ile	Leu	Cys	Leu	Glu	Tyr	Ser	Lys	Pro	Asp
305					310					315				320	
Thr	Gly	Leu	Lys	Leu	Leu	Ala	Ser	Ala	Ser	Arg	Asp	Arg	Leu	Ile	His
		325						330					335		
Val	Leu	Asp	Ala	Gly	Arg	Glu	Tyr	Ser	Leu	Gln	Gln	Thr	Leu	Asp	Glu
		340					345						350		
His	Ser	Ser	Ser	Ile	Thr	Ala	Val	Lys	Phe	Ala	Ala	Ser	Asp	Gly	Gln
	355						360						365		
Val	Arg	Met	Ile	Ser	Cys	Gly	Ala	Asp	Lys	Ser	Ile	Tyr	Phe	Arg	Thr
	370				375						380				
Ala	Gln	Lys	Ser	Gly	Asp	Gly	Val	Gln	Phe	Thr	Arg	Thr	His	His	Val
385				390						395				400	
Val	Arg	Lys	Thr	Thr	Leu	Tyr	Asp	Met	Asp	Val	Glu	Pro	Ser	Trp	Lys
		405						410						415	
Tyr	Thr	Ala	Ile	Gly	Cys	Gln	Asp	Arg	Asn	Ile	Arg	Ile	Phe	Asn	Ile
		420					425						430		
Ser	Ser	Gly	Lys	Gln	Lys	Lys	Leu	Phe	Lys	Gly	Ser	Gln	Gly	Glu	Asp
	435						440					445			
Gly	Thr	Leu	Ile	Lys	Val	Gln	Thr	Asp	Pro	Ser	Gly	Ile	Tyr	Ile	Ala
	450					455					460				
Thr	Ser	Cys	Ser	Asp	Lys	Asn	Leu	Ser	Ile	Phe	Asp	Phe	Ser	Ser	Gly
465				470						475				480	
Glu	Cys	Val	Ala	Thr	Met	Phe	Gly	His	Ser	Glu	Ile	Val	Thr	Gly	Met

				485					490					495			
Lys	Phe	Ser	Asn	Asp	Cys	Lys	His	Leu	Ile	Ser	Val	Ser	Gly	Asp	Ser		
			500					505					510				
Cys	Ile	Phe	Val	Trp	Arg	Leu	Ser	Ser	Glu	Met	Thr	Ile	Ser	Met	Arg		
		515					520					525					
Gln	Arg	Leu	Ala	Glu	Leu	Arg	Gln	Arg	Gln	Arg	Gly	Gly	Lys	Gln	Gln		
	530					535					540						
Gly	Pro	Ser	Ser	Pro	Gln	Arg	Ala	Ser	Gly	Pro	Asn	Arg	His	Gln	Ala		
545					550				555						560		
Pro	Ser	Met	Leu	Ser	Pro	Gly	Pro	Ala	Leu	Ser	Ser	Asp	Ser	Asp	Lys		
			565						570					575			
Glu	Gly	Glu	Asp	Glu	Gly	Thr	Glu	Glu	Glu	Leu	Pro	Ala	Leu	Pro	Val		
			580					585					590				
Leu	Ala	Lys	Ser	Thr	Lys	Lys	Ala	Leu	Ala	Ser	Val	Pro	Ser	Pro	Ala		
	595						600					605					
Leu	Pro	Arg	Ser	Leu	Ser	His	Trp	Glu	Met	Ser	Arg	Ala	Gln	Glu	Ser		
	610					615					620						
Val	Gly	Phe	Leu	Asp	Pro	Ala	Pro	Ala	Ala	Asn	Pro	Gly	Pro	Arg	Arg		
625					630					635					640		
Arg	Gly	Arg	Trp	Val	Gln	Pro	Gly	Val	Glu	Leu	Ser	Val	Arg	Ser	Met		
			645						650					655			
Leu	Asp	Leu	Arg	Gln	Leu	Glu	Thr	Leu	Ala	Pro	Ser	Leu	Gln	Asp	Pro		
			660					665					670				
Ser	Gln	Asp	Ser	Leu	Ala	Ile	Ile	Pro	Ser	Gly	Pro	Arg	Lys	His	Gly		
	675						680					685					
Gln	Glu	Ala	Leu	Glu	Thr	Ser	Leu	Thr	Ser	Gln	Asn	Glu	Lys	Pro	Pro		
	690					695					700						
Arg	Pro	Gln	Ala	Ser	Gln	Pro	Cys	Ser	Tyr	Pro	His	Ile	Ile	Arg	Leu		
705					710				715						720		
Leu	Ser	Gln	Glu	Glu	Gly	Val	Phe	Ala	Gln	Asp	Leu	Glu	Pro	Ala	Pro		
			725						730					735			
Ile	Glu	Asp	Gly	Ile	Val	Tyr	Pro	Glu	Pro	Ser	Asp	Asn	Pro	Thr	Met		
			740					745						750			
Asp	Thr	Ser	Glu	Phe	Gln	Val	Gln	Ala	Pro	Ala	Arg	Gly	Thr	Leu	Gly		
	755						760					765					
Arg	Val	Tyr	Pro	Gly	Ser	Arg	Ser	Ser	Glu	Lys	His	Ser	Pro	Asp	Ser		
	770					775						780					
Ala	Cys	Ser	Val	Asp	Tyr	Ser	Ser	Ser	Cys	Leu	Ser	Ser	Pro	Glu	His		
785					790					795					800		
Pro	Thr	Glu	Asp	Ser	Glu	Ser	Thr	Glu	Pro	Leu	Ser	Val	Asp	Gly	Ile		
			805						810					815			
Ser	Ser	Asp	Leu	Glu	Glu	Pro	Ala	Glu	Gly	Asp	Glu	Glu	Glu	Glu	Glu		
			820					825					830				
Glu	Glu	Gly	Gly	Met	Gly	Pro	Tyr	Gly	Leu	Gln	Glu	Gly	Ser	Pro	Gln		
		835					840						845				
Thr	Pro	Asp	Gln	Glu	Gln	Phe	Leu	Lys	Gln	His	Phe	Glu	Thr	Leu	Ala		
	850					855						860					
Ser	Gly	Ala	Ala	Pro	Gly	Ala	Pro	Val	Gln	Val	Pro	Glu	Arg	Ser	Glu		
865					870				875						880		
Ser	Arg	Ser	Ile	Ser	Ser	Arg	Phe	Leu	Leu	Gln	Val	Gln	Thr	Arg	Pro		
			885					890						895			
Leu	Arg	Glu	Pro	Ser	Pro	Ser	Ser	Ser	Ser	Leu	Ala	Leu	Met	Ser	Arg		
			900					905					910				
Pro	Ala	Gln	Val	Pro	Gln	Ala	Ser	Gly	Glu	Gln	Pro	Arg	Gly	Asn	Gly		
		915					920						925				
Ala	Asn	Pro	Pro	Gly	Ala	Pro	Pro	Glu	Val	Glu	Pro	Ser	Ser	Gly	Asn		
	930					935							940				
Pro	Ser	Pro	Gln	Gln	Ala	Ala	Ser	Val	Leu	Leu	Pro	Arg	Cys	Arg	Leu		
945					950				955						960		
Asn	Pro	Asp	Ser	Ser	Trp	Ala	Pro	Lys	Arg	Val	Ala	Thr	Ala	Ser	Pro		
			965					970						975			
Phe	Ser	Gly	Leu	Gln	Lys	Ala	Gln	Ser	Val	His	Ser	Leu	Val	Pro	Gln		
			980					985						990			
Glu	Arg	His	Glu	Ala	Ser	Leu	Gln	Ala	Pro	Ser	Pro	Gly	Ala	Leu	Leu		

995 1000 1005
 Ser Arg Glu Ile Glu Ala Gln Asp Gly Leu Gly Ser Leu Pro Pro Ala
 1010 1015 1020
 Asp Gly Arg Pro Ser Arg Pro His Ser Tyr Gln Asn Pro Thr Thr Ser
 1025 1030 1035 1040
 Ser Met Ala Lys Ile Ser Arg Ser Ile Ser Val Gly Glu Asn Leu Gly
 1045 1050 1055
 Leu Val Ala Glu Pro Gln Ala His Ala Pro Ile Arg Val Ser Pro Leu
 1060 1065 1070
 Ser Lys Leu Ala Leu Pro Ser Arg Ala His Leu Val Leu Asp Ile Pro
 1075 1080 1085
 Lys Pro Leu Pro Asp Arg Pro Thr Leu Ala Ala Phe Ser Pro Val Thr
 1090 1095 1100
 Lys Gly Arg Ala Pro Gly Glu Ala Glu Lys Pro Gly Phe Pro Val Gly
 1105 1110 1115 1120
 Leu Gly Lys Ala His Ser Thr Thr Glu Arg Trp Ala Cys Leu Gly Glu
 1125 1130 1135
 Gly Thr Thr Pro Lys Pro Arg Thr Glu Cys Gln Ala His Pro Gly Pro
 1140 1145 1150
 Ser Ser Pro Cys Ala Gln Gln Leu Pro Val Ser Ser Leu Phe Gln Gly
 1155 1160 1165
 Pro Glu Asn Leu Gln Pro Pro Pro Glu Lys Thr Pro Asn Pro Met
 1170 1175 1180
 Glu Cys Thr Lys Pro Gly Ala Ala Leu Ser Gln Asp Ser Glu Pro Ala
 1185 1190 1195 1200
 Val Ser Leu Glu Gln Cys Glu Gln Leu Val Ala Glu Leu Arg Gly Ser
 1205 1210 1215
 Val Arg Gln Ala Val Arg Leu Tyr His Ser Val Ala Gly Cys Lys Met
 1220 1225 1230
 Pro Ser Ala Glu Gln Ser Arg Ile Ala Gln Leu Leu Arg Asp Thr Phe
 1235 1240 1245
 Ser Ser Val Arg Gln Glu Leu Glu Ala Val Ala Gly Ala Val Leu Ser
 1250 1255 1260
 Ser Pro Gly Ser Ser Pro Gly Ala Val Gly Ala Glu Gln Thr Gln Ala
 1265 1270 1275 1280
 Leu Leu Glu Gln Tyr Ser Glu Leu Leu Leu Arg Ala Val Glu Arg Arg
 1285 1290 1295
 Met Glu Arg Lys Leu
 13001301

<210> 3600
 <211> 257
 <212> PRT
 <213> Homo sapiens

<400> 3600
 Ile Pro Gly Ser Thr Ile Ser Cys Ser Met Ala Leu Cys Glu Ala Ala
 1 5 10 15
 Gly Cys Gly Ser Ala Leu Leu Trp Pro Arg Leu Leu Leu Phe Gly Asp
 20 25 30
 Ser Ile Thr Gln Phe Ser Phe Gln Gln Gly Gly Trp Gly Ala Ser Leu
 35 40 45
 Ala Asp Arg Leu Val Arg Lys Cys Asp Val Leu Asn Arg Gly Phe Ser
 50 55 60
 Gly Tyr Asn Thr Arg Trp Ala Lys Ile Ile Leu Pro Arg Leu Ile Arg
 65 70 75 80
 Lys Gly Asn Ser Leu Asp Ile Pro Val Ala Val Thr Ile Phe Phe Gly
 85 90 95
 Ala Asn Asp Ser Ala Leu Lys Asp Glu Asn Pro Lys Gln His Ile Pro
 100 105 110
 Leu Glu Glu Tyr Ala Ala Asn Leu Lys Ser Met Val Gln Tyr Leu Lys


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      115      120      125
Ser Val Asp Ile Pro Glu Asn Arg Val Ile Leu Ile Thr Pro Thr Pro
      130      135      140
Leu Cys Glu Thr Ala Trp Glu Glu Gln Cys Ile Ile Gln Gly Cys Lys
      145      150      155      160
Leu Asn Arg Leu Asn Ser Val Val Gly Glu Tyr Ala Asn Ala Cys Leu
      165      170      175
Gln Val Ala Gln Asp Cys Gly Thr Asp Val Leu Asp Leu Trp Thr Leu
      180      185      190
Met Gln Asp Ser Gln Asp Phe Ser Ser Tyr Leu Ser Asp Gly Leu His
      195      200      205
Leu Ser Pro Lys Gly Asn Glu Phe Leu Phe Ser His Leu Trp Pro Leu
      210      215      220
Ile Glu Lys Lys Val Ser Ser Leu Pro Leu Leu Leu Pro Tyr Trp Arg
      225      230      235      240
Asp Val Ala Glu Ala Lys Pro Glu Leu Ser Leu Leu Gly Asp Gly Asp
      245      250      255
His
257

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<210> 3601
<211> 59
<212> PRT
<213> Homo sapiens

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      <400> 3601
Val His Phe Pro Leu Ile Pro Gln Leu Ala Lys Cys Phe Trp Thr Met
      1      5      10      15
Asn Arg Ala Ala Arg Asn Lys Ser Glu Lys Arg Tyr Tyr Ser Glu Phe
      20      25      30
Leu Gln Ile Ala His Leu Phe Asn Tyr Gly Leu Ser Ser Phe Leu Arg
      35      40      45
Glu Phe Ile Ile Phe Leu Ile Lys Leu Leu Gln
      50      55      59

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<210> 3602
<211> 362
<212> PRT
<213> Homo sapiens

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      <400> 3602
Val Pro Lys Pro Ala Ser Gly Lys Arg Arg Leu Glu Phe Arg Pro Gln
      1      5      10      15
Asp Ser Lys Ala Cys Ala Ala Thr Pro His Ser Pro Gly Arg Ile Thr
      20      25      30
Ser Arg Thr Arg Gly Ser Gln Lys Val Arg Ser Val Pro Pro Arg Leu
      35      40      45
Pro Trp Ala Gln Ala Ser Ala Ser Thr Asp Trp Glu Gly Leu Arg Gly
      50      55      60
Val Pro Gly Pro Ala Leu Arg Arg Glu Asn Phe Leu Glu Ala Ala Ala
      65      70      75      80
Ser Gly Arg Ser Gly Arg Thr Pro Thr Gly Gly Val Gly Phe Arg Asp
      85      90      95
Val Gly Gly Pro His Phe Pro Ile Phe Pro Ala Ala His Phe Leu Trp
      100      105      110
Cys Asn Leu His Thr Pro Arg Arg Pro Ala Cys Asn Ala Pro Trp His
      115      120      125
Ser Pro Val Gly Glu Ile Ser Pro Pro Pro Arg Glu Ser Gln Leu Arg

```

130	135	140
Arg Asp Pro Glu Val His	Phe Glu Ser Pro Ala His Pro Leu Gly Phe	
145	150	155
Arg Leu Leu Pro Gly Arg Gly Leu Pro Ala Asn Ala Val Thr Val Glu		160
	165	170
Thr Ala Ala Met Ala Ala Pro Arg Gln Ile Pro Ser His Ile Val Arg		175
	180	185
Leu Lys Pro Ser Cys Ser Thr Asp Ser Ser Phe Thr Arg Thr Pro Val		190
	195	200
Pro Thr Val Ser Leu Ala Ser Arg Glu Leu Pro Val Ser Ser Trp Gln		205
	210	215
Val Thr Glu Pro Ser Ser Lys Asn Leu Trp Glu Gln Ile Cys Lys Glu		220
225	230	235
Tyr Glu Ala Glu Gln Pro Pro Phe Pro Glu Gly Tyr Lys Val Lys Gln		240
	245	250
Glu Pro Val Ile Thr Val Ala Pro Val Glu Glu Met Leu Phe His Gly		255
	260	265
Phe Ser Ala Glu His Tyr Phe Pro Val Ser His Phe Thr Met Ile Ser		270
	275	280
Arg Thr Pro Cys Pro Gln Asp Lys Ser Glu Thr Ile Asn Pro Lys Thr		285
	290	295
Cys Ser Pro Lys Glu Tyr Leu Glu Thr Phe Ile Phe Pro Val Leu Leu		300
305	310	315
Pro Gly Met Ala Ser Leu Leu His Gln Ala Lys Lys Glu Lys Cys Phe		320
	325	330
Glu Val Val Leu Gln Met Thr Pro Ser Gly Gly Lys Ala Cys Val Trp		335
	340	345
Gly His Leu Pro Ser Ser Ser His Thr Ile		350
	355	360
		362

<210> 3603
 <211> 100
 <212> PRT
 <213> Homo sapiens

<400> 3603
Asn Ile Ser Asn Lys Ala Glu Val Ser Ser His Pro Ser Val Ile Ser
1 5 10 15
His Ser Met Asp Ser Phe Gly Gln Pro Arg Pro Glu Asp Asn Gln Ser
20 25 30
Val Leu Arg Arg Met Gln Lys Lys Tyr Trp Lys Thr Lys Gln Val Phe
35 40 45
Ile Lys Ala Thr Gly Lys Lys Glu Asp Glu His Leu Val Ala Ser Asp
50 55 60
Ala Glu Leu Asp Ala Lys Leu Glu Val Phe His Ser Val Gln Glu Thr
65 70 75 80
Cys Thr Glu Leu Leu Lys Ile Ile Glu Lys Tyr Gln Leu Arg Leu Asn
85 90 95
Gly Met Lys Ser
100

<210> 3604
 <211> 779
 <212> PRT
 <213> Homo sapiens

<400> 3604
 Gln Pro Arg Arg Arg Val Phe Pro Ala Ala Gly Arg Gly Pro Gly Arg

1	5	10	15
Lys Cys Ser Gln Trp Gly Arg Gln Ala Ser Val Ser Phe Glu Asp Val			
20	25	30	
Thr Val Asp Phe Ser Lys Glu Glu Trp Gln His Leu Asp Pro Ala Gln			
35	40	45	
Arg Arg Leu Tyr Trp Asp Val Thr Leu Glu Asn Tyr Ser His Leu Leu			
50	55	60	
Ser Val Gly Tyr Gln Ile Pro Lys Ser Glu Ala Ala Phe Lys Leu Glu			
65	70	75	80
Gln Gly Glu Gly Pro Trp Met Leu Glu Gly Glu Ala Pro His Gln Ser			
85	90	95	
Cys Ser Gly Glu Ala Ile Gly Lys Met Gln Gln Gln Gly Ile Pro Gly			
100	105	110	
Gly Ile Phe Phe His Cys Glu Arg Phe Asp Gln Pro Ile Gly Glu Asp			
115	120	125	
Ser Leu Cys Ser Ile Leu Glu Glu Leu Trp Gln Asp Asn Asp Gln Leu			
130	135	140	
Glu Gln Arg Gln Glu Asn Gln Asn Asn Leu Leu Ser His Val Lys Val			
145	150	155	160
Leu Ile Lys Glu Arg Gly Tyr Glu His Lys Asn Ile Glu Lys Ile Ile			
165	170	175	
His Val Thr Thr Lys Leu Val Pro Ser Ile Lys Arg Leu His Asn Cys			
180	185	190	
Asp Thr Ile Leu Lys His Thr Leu Asn Ser His Asn His Asn Arg Asn			
195	200	205	
Ser Ala Thr Lys Asn Leu Gly Lys Ile Phe Gly Asn Gly Asn Asn Phe			
210	215	220	
Pro His Ser Pro Ser Ser Thr Lys Asn Glu Asn Ala Lys Thr Gly Ala			
225	230	235	240
Asn Ser Cys Glu His Asp His Tyr Glu Lys His Leu Ser His Lys Gln			
245	250	255	
Ala Pro Thr His His Gln Lys Ile His Pro Glu Glu Lys Leu Tyr Val			
260	265	270	
Cys Thr Glu Cys Val Met Gly Phe Thr Gln Lys Ser His Leu Phe Glu			
275	280	285	
His Gln Arg Ile His Ala Gly Glu Lys Ser Arg Glu Cys Asp Lys Ser			
290	295	300	
Asn Lys Val Phe Pro Gln Lys Pro Gln Val Asp Val His Pro Ser Val			
305	310	315	320
Tyr Thr Gly Glu Lys Pro Tyr Leu Cys Thr Gln Cys Gly Lys Val Phe			
325	330	335	
Thr Leu Lys Ser Asn Leu Ile Thr His Gln Lys Ile His Thr Gly Gln			
340	345	350	
Lys Pro Tyr Lys Cys Ser Glu Cys Gly Lys Ala Phe Phe Gln Arg Ser			
355	360	365	
Asp Leu Phe Arg His Leu Arg Ile His Thr Gly Glu Lys Pro Tyr Glu			
370	375	380	
Cys Ser Glu Cys Gly Lys Gly Phe Ser Gln Asn Ser Asp Leu Ser Ile			
385	390	395	400
His Gln Lys Thr His Thr Gly Glu Lys His Tyr Glu Cys Asn Glu Cys			
405	410	415	
Gly Lys Ala Phe Thr Arg Lys Ser Ala Leu Arg Met His Gln Arg Ile			
420	425	430	
His Thr Gly Glu Lys Pro Tyr Val Cys Ala Asp Cys Gly Lys Ala Phe			
435	440	445	
Ile Gln Lys Ser His Phe Asn Thr His Gln Arg Ile His Thr Gly Glu			
450	455	460	
Lys Pro Tyr Glu Cys Ser Asp Cys Gly Lys Ser Phe Thr Lys Lys Ser			
465	470	475	480
Gln Leu His Val His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Ile			
485	490	495	
Cys Thr Glu Cys Gly Lys Val Phe Thr His Arg Thr Asn Leu Thr Thr			
500	505	510	
His Gln Lys Thr His Thr Gly Glu Lys Pro Tyr Met Cys Ala Glu Cys			

515	520	525
Gly Lys Ala Phe Thr Asp Gln Ser Asn Leu Ile Lys His Gln Lys Thr		
530	535	540
His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Gly Cys Gly Lys Ala Phe		
545	550	555
Ile Trp Lys Ser Arg Leu Lys Ile His Gln Lys Ser His Ile Gly Glu		560
565	570	575
Arg His Tyr Glu Cys Lys Asp Cys Gly Lys Ala Phe Ile Gln Lys Ser		
580	585	590
Thr Leu Ser Val His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Val		
595	600	605
Cys Pro Glu Cys Gly Lys Ala Phe Ile Gln Lys Ser His Phe Ile Ala		
610	615	620
His His Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Ser Asp Cys		
625	630	635
Gly Lys Cys Phe Thr Lys Lys Ser Gln Leu Arg Val His Gln Lys Ile		640
645	650	655
His Thr Gly Glu Lys Pro Asn Ile Cys Ala Glu Cys Gly Lys Ala Phe		
660	665	670
Thr Asp Arg Ser Asn Leu Ile Thr His Gln Lys Ile His Thr Arg Glu		
675	680	685
Lys Pro Tyr Glu Cys Gly Asp Cys Gly Lys Thr Phe Thr Trp Lys Ser		
690	695	700
Arg Leu Asn Ile His Gln Lys Ser His Thr Gly Glu Arg His Tyr Glu		
705	710	715
Cys Ser Lys Cys Gly Lys Ala Phe Ile Gln Lys Ala Thr Leu Ser Met		720
725	730	735
His Gln Ile Ile His Thr Gly Lys Lys Pro Tyr Ala Cys Thr Glu Cys		
740	745	750
Gln Lys Ala Phe Thr Asp Arg Ser Asn Leu Ile Lys His Gln Lys Met		
755	760	765
His Ser Gly Glu Lys Arg Tyr Lys Ala Ser Asp		
770	775	779

<210> 3605
 <211> 106
 <212> PRT
 <213> Homo sapiens

<400> 3605

Ser Phe Arg Met Ser Gly Arg Gly Lys Gly Gly Lys Gly Leu Gly Lys	
1	5
Gly Gly Ala Lys Arg His Arg Lys Val Leu Arg Asp Asn Ile Gln Gly	10
20	25
Ile Thr Lys Pro Ala Ile Arg Arg Leu Ala Arg Arg Gly Gly Val Lys	30
35	40
Arg Ile Ser Gly Leu Ile Tyr Glu Glu Thr Arg Gly Val Leu Lys Val	45
50	55
Phe Leu Glu Asn Val Ile Arg Asp Ala Val Thr Tyr Thr Glu His Ala	60
65	70
Lys Arg Lys Thr Val Thr Ala Met Asp Val Val Tyr Ala Leu Lys Arg	75
85	90
Gln Gly Arg Thr Leu Tyr Gly Phe Gly Gly	95
100	105 106

<210> 3606
 <211> 583
 <212> PRT
 <213> Homo sapiens

<400> 3606

Val	Pro	Val	Thr	Ala	Glu	Ala	Lys	Leu	Met	Gly	Phe	Thr	Gln	Gly	Cys
1				5				10						15	
Val	Thr	Phe	Glu	Asp	Val	Ala	Ile	Tyr	Phe	Ser	Gln	Glu	Glu	Trp	Gly
			20					25						30	
Leu	Leu	Asp	Glu	Ala	Gln	Arg	Leu	Tyr	Arg	Asp	Val	Met	Leu	Glu	
		35					40				45				
Asn	Phe	Ala	Leu	Ile	Thr	Ala	Leu	Val	Cys	Trp	His	Gly	Met	Glu	Asp
	50					55					60				
Glu	Glu	Thr	Pro	Glu	Gln	Ser	Val	Ser	Val	Glu	Gly	Val	Pro	Gln	Val
	65				70					75					80
Arg	Thr	Pro	Glu	Ala	Ser	Pro	Ser	Thr	Gln	Lys	Ile	Gln	Ser	Cys	Asp
				85					90					95	
Met	Cys	Val	Pro	Phe	Leu	Thr	Asp	Ile	Leu	His	Leu	Thr	Asp	Leu	Pro
			100					105					110		
Gly	Gln	Glu	Leu	Tyr	Leu	Thr	Gly	Ala	Cys	Ala	Val	Phe	His	Gln	Asp
		115					120					125			
Gln	Lys	His	His	Ser	Ala	Glu	Lys	Pro	Leu	Glu	Ser	Asp	Met	Asp	Lys
	130					135					140				
Ala	Ser	Phe	Val	Gln	Cys	Cys	Leu	Phe	His	Glu	Ser	Gly	Met	Pro	Phe
	145				150					155					160
Thr	Ser	Ser	Glu	Val	Gly	Lys	Asp	Phe	Leu	Ala	Pro	Leu	Gly	Ile	Leu
				165					170					175	
Gln	Pro	Gln	Ala	Ile	Ala	Asn	Tyr	Glu	Lys	Pro	Asn	Lys	Ile	Ser	Lys
			180					185						190	
Cys	Glu	Glu	Ala	Phe	His	Val	Gly	Ile	Ser	His	Tyr	Lys	Trp	Ser	Gln
	195						200					205			
Cys	Arg	Arg	Glu	Ser	Ser	His	Lys	His	Thr	Phe	Phe	His	Pro	Arg	Val
	210					215					220				
Cys	Thr	Gly	Lys	Arg	Leu	Tyr	Glu	Ser	Ser	Lys	Cys	Gly	Lys	Ala	Cys
	225				230					235					240
Cys	Cys	Glu	Cys	Ser	Leu	Val	Gln	Leu	Gln	Arg	Val	His	Pro	Gly	Glu
				245					250					255	
Arg	Pro	Tyr	Glu	Cys	Ser	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Gln	Thr	Ser
			260					265					270		
His	Leu	Asn	Asp	His	Arg	Arg	Ile	His	Thr	Gly	Glu	Arg	Pro	Tyr	Val
		275					280					285			
Cys	Gly	Gln	Cys	Gly	Lys	Ser	Phe	Ser	Gln	Arg	Ala	Thr	Leu	Ile	Lys
	290					295					300				
His	His	Arg	Val	His	Thr	Gly	Glu	Arg	Pro	Tyr	Glu	Cys	Gly	Glu	Cys
	305				310					315					320
Gly	Lys	Ser	Phe	Ser	Gln	Ser	Ser	Asn	Leu	Ile	Glu	His	Cys	Arg	Ile
				325					330					335	
His	Thr	Gly	Glu	Arg	Pro	Tyr	Glu	Cys	Asp	Glu	Cys	Gly	Lys	Ala	Phe
			340					345					350		
Gly	Ser	Lys	Ser	Thr	Leu	Val	Arg	His	Gln	Arg	Thr	His	Thr	Gly	Glu
		355					360					365			
Lys	Pro	Tyr	Glu	Cys	Gly	Glu	Cys	Gly	Lys	Leu	Phe	Arg	Gln	Ser	Phe
	370					375					380				
Ser	Leu	Val	Val	His	Gln	Arg	Ile	His	Thr	Thr	Ala	Arg	Pro	Tyr	Glu
	385				390					395					400
Cys	Gly	Gln	Cys	Gly	Lys	Ser	Phe	Ser	Leu	Lys	Cys	Gly	Leu	Ile	Gln
				405					410					415	
His	Gln	Leu	Ile	His	Ser	Gly	Ala	Arg	Pro	Phe	Glu	Cys	Asp	Glu	Cys
			420					425					430		
Gly	Lys	Ser	Phe	Ser	Gln	Arg	Thr	Thr	Leu	Asn	Lys	His	His	Lys	Val
		435					440					445			
His	Thr	Ala	Glu	Arg	Pro	Tyr	Val	Cys	Gly	Glu	Cys	Gly	Lys	Ala	Phe
	450					455					460				
Met	Phe	Lys	Ser	Lys	Leu	Val	Arg	His	Gln	Arg	Thr	His	Thr	Gly	Glu
	465				470					475					480
Arg	Pro	Phe	Glu	Cys	Ser	Glu	Cys	Gly	Lys	Phe	Phe	Arg	Gln	Ser	Tyr

				485					490					495			
Thr	Leu	Val	Glu	His	Gln	Lys	Ile	His	Thr	Gly	Leu	Arg	Pro	Tyr	Asp		
			500					505					510				
Cys	Gly	Gln	Cys	Gly	Lys	Ser	Phe	Ile	Gln	Lys	Ser	Ser	Leu	Ile	Gln		
		515					520					525					
His	Gln	Val	Val	His	Thr	Gly	Glu	Arg	Pro	Tyr	Glu	Cys	Gly	Lys	Cys		
	530					535					540						
Gly	Lys	Ser	Phe	Thr	Gln	His	Ser	Gly	Leu	Ile	Leu	His	Arg	Lys	Ser		
545					550				555						560		
His	Thr	Val	Glu	Arg	Pro	Arg	Asp	Ser	Ser	Lys	Cys	Gly	Lys	Pro	Tyr		
			565					570						575			
Ser	Pro	Arg	Ser	Asn	Ile	Val											
			580			583											

<210> 3607
 <211> 80
 <212> PRT
 <213> Homo sapiens

<400> 3607

Ala	Met	Ala	Gly	Pro	Gly	Pro	Gly	Pro	Gly	Asp	Pro	Asp	Glu	Gln	Tyr		
1				5					10					15			
Asp	Phe	Leu	Phe	Lys	Leu	Val	Leu	Val	Gly	Asp	Ala	Ser	Val	Gly	Lys		
		20					25						30				
Thr	Cys	Val	Val	Gln	Arg	Phe	Lys	Thr	Gly	Ala	Phe	Ser	Glu	Arg	Gln		
		35					40					45					
Gly	Ser	Thr	Ile	Gly	Val	Asp	Phe	Thr	Met	Lys	Thr	Leu	Glu	Ile	Gln		
	50				55				60								
Gly	Lys	Arg	Val	Lys	Leu	Gln	Ile	Trp	Asp	Thr	Ala	Gly	Gln	Glu	Arg		
65					70				75						80		

<210> 3608
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 3608

Ala	Ile	Lys	Gly	Tyr	Ile	His	Leu	Ser	Ala	Pro	Arg	Asn	Arg	Tyr	Met		
1				5					10					15			
His	Thr	Thr	Ala	Ser	Asn	Gly	Arg	Met	Leu	Phe	Met	Lys	Val	Thr	Met		
		20					25						30				
Tyr	Met	Arg	Arg	Gly	Val	Gln	Ile	Met	Gly	Trp	Ser	Val	Arg	Met	Ala		
		35					40					45					
Phe	Met	Ala	Cys	Phe	Thr	Gln											
	50					55											

<210> 3609
 <211> 252
 <212> PRT
 <213> Homo sapiens

<400> 3609

Val	Trp	Met	Ala	Trp	Gln	Val	Ser	Leu	Leu	Glu	Leu	Glu	Asp	Arg	Leu		
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	--	--

1	5	10	15
Gln Cys Pro Ile Cys Leu Glu Val Phe Lys Glu Ser Leu Met Leu Gln			
20	25	30	
Cys Gly His Ser Tyr Cys Lys Gly Cys Leu Val Ser Leu Ser Tyr His			
35	40	45	
Leu Asp Thr Lys Val Arg Cys Pro Met Cys Trp Gln Val Val Asp Gly			
50	55	60	
Ser Ser Ser Leu Pro Asn Val Ser Leu Ala Trp Val Ile Glu Ala Leu			
65	70	75	80
Arg Leu Pro Gly Asp Pro Glu Pro Lys Val Cys Val His His Arg Asn			
85	90	95	
Pro Leu Ser Leu Phe Cys Glu Lys Asp Gln Glu Leu Ile Cys Gly Leu			
100	105	110	
Cys Gly Leu Leu Gly Ser His Gln His His Pro Val Thr Pro Val Ser			
115	120	125	
Thr Val Cys Ser Arg Met Lys Glu Glu Leu Ala Ala Leu Phe Ser Glu			
130	135	140	
Leu Lys Gln Glu Gln Lys Lys Val Asp Glu Leu Ile Ala Lys Leu Val			
145	150	155	160
Lys Asn Arg Thr Arg Ile Val Asn Glu Ser Asp Val Phe Ser Trp Val			
165	170	175	
Ile Arg Arg Glu Phe Gln Glu Leu Arg His Pro Val Asp Glu Glu Lys			
180	185	190	
Ala Arg Cys Leu Glu Gly Ile Gly Gly His Thr Arg Gly Leu Val Ala			
195	200	205	
Ser Leu Asp Met Gln Leu Glu Gln Ala Gln Gly Thr Arg Glu Arg Leu			
210	215	220	
Ala Gln Ala Glu Cys Val Leu Glu Gln Phe Gly Asn Glu Asp His His			
225	230	235	240
Glu Phe Ile Trp Lys Phe His Ser Met Ala Ser Arg			
245	250	252	

<210> 3610

<211> 328

<212> PRT

<213> Homo sapiens

<400> 3610

Asp Pro Arg Val Arg Pro Pro Leu Leu Gln Pro Pro Pro Pro Leu Leu			
1	5	10	15
Pro Arg Leu Val Ile Leu Lys Met Ala Pro Leu Asp Leu Asp Lys Tyr			
20	25	30	
Val Glu Ile Ala Arg Leu Cys Lys Tyr Leu Pro Glu Asn Asp Leu Lys			
35	40	45	
Arg Leu Cys Asp Tyr Val Cys Asp Leu Leu Leu Glu Glu Ser Asn Val			
50	55	60	
Gln Pro Val Ser Thr Pro Val Thr Val Cys Gly Asp Ile His Gly Gln			
65	70	75	80
Phe Tyr Asp Leu Cys Glu Leu Phe Arg Thr Gly Gly Gln Val Pro Asp			
85	90	95	
Thr Asn Tyr Ile Phe Met Gly Asp Phe Val Asp Arg Gly Tyr Tyr Ser			
100	105	110	
Leu Glu Thr Phe Thr Tyr Leu Leu Ala Leu Lys Ala Lys Trp Pro Asp			
115	120	125	
Arg Ile Thr Leu Leu Arg Gly Asn His Glu Ser Arg Gln Ile Thr Gln			
130	135	140	
Val Tyr Gly Phe Tyr Asp Glu Cys Gln Thr Lys Tyr Gly Asn Ala Asn			
145	150	155	160
Ala Trp Arg Tyr Cys Thr Lys Val Phe Asp Met Leu Thr Val Ala Ala			
165	170	175	
Leu Ile Asp Glu Gln Ile Leu Cys Val His Gly Gly Leu Ser Pro Asp			

Ile	Lys	Thr	Leu	Asp	Gln	Ile	Arg	Thr	Ile	Glu	Arg	Asn	Gln	Glu	Ile
			180					185					190		
Pro	His	Lys	Gly	Ala	Phe	Cys	Asp	Leu	Val	Trp	Ser	Asp	Pro	Glu	Asp
			195				200					205			
Val	Asp	Thr	Trp	Ala	Ile	Ser	Pro	Arg	Gly	Ala	Gly	Trp	Leu	Phe	Gly
			210				215					220			
Ala	Lys	Val	Thr	Asn	Glu	Phe	Val	His	Ile	Asn	Asn	Leu	Lys	Leu	Ile
				245				250					255		
Cys	Arg	Ala	His	Gln	Leu	Val	His	Glu	Gly	Tyr	Lys	Phe	Met	Phe	Asp
			260					265					270		
Glu	Lys	Leu	Val	Thr	Val	Trp	Ser	Ala	Pro	Asn	Tyr	Cys	Tyr	Arg	Cys
			275				280						285		
Gly	Asn	Ile	Ala	Ser	Ile	Met	Val	Phe	Lys	Asp	Val	Asn	Thr	Arg	Glu
			290				295					300			
Pro	Lys	Leu	Phe	Arg	Ala	Val	Pro	Asp	Ser	Glu	Arg	Val	Ile	Pro	Pro
				310						315				320	
Arg	Thr	Thr	Thr	Pro	Tyr	Phe	Leu								
				325			328								

<210> 3611
 <211> 530
 <212> PRT
 <213> Homo sapiens

<400> 3611

Ala	Glu	Lys	Met	Thr	Ala	Glu	Leu	Arg	Glu	Ala	Met	Ala	Leu	Ala	Pro
1				5					10					15	
Trp	Gly	Pro	Val	Lys	Val	Lys	Lys	Glu	Glu	Glu	Glu	Glu	Glu	Asn	Phe
			20					25					30		
Pro	Gly	Gln	Ala	Ser	Ser	Gln	Gln	Val	His	Ser	Glu	Asn	Ile	Lys	Val
			35				40					45			
Trp	Ala	Pro	Val	Gln	Gly	Leu	Gln	Thr	Gly	Leu	Asp	Gly	Ser	Glu	Glu
			50				55				60				
Glu	Glu	Lys	Gly	Gln	Asn	Ile	Ser	Trp	Asp	Met	Ala	Val	Val	Leu	Lys
				70						75				80	
Ala	Thr	Gln	Glu	Ala	Pro	Ala	Ala	Ser	Thr	Leu	Gly	Ser	Tyr	Ser	Leu
				85				90						95	
Pro	Gly	Thr	Leu	Ala	Lys	Ser	Glu	Ile	Leu	Glu	Thr	His	Gly	Thr	Met
			100					105					110		
Asn	Phe	Leu	Gly	Ala	Glu	Thr	Lys	Asn	Leu	Gln	Leu	Leu	Val	Pro	Lys
			115				120						125		
Thr	Glu	Ile	Cys	Glu	Glu	Ala	Glu	Lys	Pro	Leu	Ile	Ile	Ser	Glu	Arg
			130				135				140				
Ile	Gln	Lys	Ala	Asp	Pro	Gln	Gly	Pro	Glu	Leu	Gly	Glu	Ala	Cys	Glu
				150						155				160	
Lys	Gly	Asn	Met	Leu	Lys	Arg	Gln	Arg	Ile	Lys	Arg	Glu	Lys	Lys	Asp
				165				170						175	
Phe	Arg	Gln	Val	Ile	Val	Asn	Asp	Cys	His	Leu	Pro	Glu	Ser	Phe	Lys
			180					185					190		
Glu	Glu	Glu	Asn	Gln	Lys	Cys	Lys	Lys	Ser	Gly	Gly	Lys	Tyr	Ser	Leu
			195				200					205			
Asn	Ser	Gly	Ala	Val	Lys	Asn	Pro	Lys	Thr	Gln	Leu	Gly	Gln	Lys	Pro
			210				215					220			
Phe	Thr	Cys	Ser	Val	Cys	Gly	Lys	Gly	Phe	Ser	Gln	Ser	Ala	Asn	Leu
				230						235				240	
Val	Val	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Phe	Glu	Cys	His
				245				250						255	
Glu	Cys	Gly	Lys	Ala	Phe	Ile	Gln	Ser	Ala	Asn	Leu	Val	Val	His	Gln
			260					265					270		
Arg	Ile	His	Thr	Gly	Gln	Lys	Pro	Tyr	Val	Cys	Ser	Lys	Cys	Gly	Lys

275	280	285
Ala Phe Thr Gln Ser Ser Asn Leu Thr Val His Gln Lys Ile His Ser		
290	295	300
Leu Glu Lys Thr Phe Lys Cys Asn Glu Cys Glu Lys Ala Phe Ser Tyr		
305	310	315
Ser Ser Gln Leu Ala Arg His Gln Lys Val His Ile Thr Glu Lys Cys		
325	330	335
Tyr Glu Cys Asn Glu Cys Gly Lys Thr Phe Thr Arg Ser Ser Asn Leu		
340	345	350
Ile Val His Gln Arg Ile His Thr Gly Glu Lys Pro Phe Ala Cys Asn		
355	360	365
Asp Cys Gly Lys Ala Phe Thr Gln Ser Ala Asn Leu Ile Val His Gln		
370	375	380
Arg Ser His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys		
385	390	395
Ala Phe Ser Cys Phe Ser His Leu Ile Val His Gln Arg Ile His Thr		
405	410	415
Ala Glu Lys Pro Tyr Asp Cys Ser Glu Cys Gly Lys Ala Phe Ser Gln		
420	425	430
Leu Ser Cys Leu Ile Val His Gln Arg Ile His Ser Gly Asp Leu Pro		
435	440	445
Tyr Val Cys Asn Glu Cys Gly Lys Ala Phe Thr Cys Ser Ser Tyr Leu		
450	455	460
Leu Ile His Gln Arg Ile His Asn Gly Glu Lys Pro Tyr Thr Cys Asn		
465	470	475
Glu Cys Gly Lys Ala Phe Arg Gln Arg Ser Ser Leu Thr Val His Gln		
485	490	495
Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Glu Lys Cys Gly Ala		
500	505	510
Ala Phe Ile Ser Asn Ser His Leu Met Arg His His Arg Thr His Leu		
515	520	525
Val Glu		
530		

<210> 3612
 <211> 642
 <212> PRT
 <213> Homo sapiens

<400> 3612
Ser Pro Met Ala Glu Ala Ala Leu Val Asn Thr Pro Gln Ile Pro Met
1 5 10 15
Val Thr Glu Glu Phe Val Lys Pro Ser Gln Gly His Val Thr Phe Glu
20 25 30
Asp Ile Ala Val Tyr Phe Ser Gln Glu Glu Trp Gly Leu Leu Asp Glu
35 40 45
Ala Gln Arg Cys Leu Tyr His Asp Val Met Leu Glu Asn Phe Ser Leu
50 55 60
Met Ala Ser Val Gly Cys Leu His Gly Ile Glu Ala Glu Glu Ala Pro
65 70 75 80
Ser Glu Gln Thr Leu Ser Ala Gln Gly Val Ser Gln Ala Arg Thr Pro
85 90 95
Lys Leu Gly Pro Ser Ile Pro Asn Ala His Ser Cys Glu Met Cys Ile
100 105 110
Leu Val Met Lys Asp Ile Leu Tyr Leu Ser Glu His Gln Gly Thr Leu
115 120 125
Pro Trp Gln Lys Pro Tyr Thr Ser Val Ala Ser Gly Lys Trp Phe Ser
130 135 140
Phe Gly Ser Asn Leu Gln Gln His Gln Asn Gln Asp Ser Gly Glu Lys
145 150 155 160
His Ile Arg Lys Glu Glu Ser Ser Ala Leu Leu Leu Asn Ser Cys Lys

5378

<210> 3613
 <211> 843
 <212> PRT
 <213> Homo sapiens

<400> 3613
 Asn Gln Ser His Pro Asp Ser Glu Thr Val Thr Val Glu Gly Gly Arg
 1 5 10 15
 Arg Lys Met Lys Ser Asn Gln Glu Arg Ser Asn Glu Cys Leu Pro Pro
 20 25 30
 Lys Lys Arg Glu Ile Pro Ala Thr Ser Arg Ser Ser Glu Glu Lys Ala
 35 40 45
 Pro Thr Leu Pro Ser Asp Asn His Arg Val Glu Gly Thr Ala Trp Leu
 50 55 60
 Pro Gly Asn Pro Gly Gly Arg Gly His Gly Gly Arg His Gly Pro
 65 70 75 80
 Ala Gly Thr Ser Val Glu Leu Gly Leu Gln Gln Gly Ile Gly Leu His
 85 90 95
 Lys Ala Leu Ser Thr Gly Leu Asp Tyr Ser Pro Pro Ser Ala Pro Arg
 100 105 110
 Ser Val Pro Val Ala Thr Thr Leu Pro Ala Ala Tyr Ala Thr Pro Gln
 115 120 125
 Pro Gly Thr Pro Val Ser Pro Val Gln Tyr Ala His Leu Pro His Thr
 130 135 140
 Phe Gln Phe Ile Gly Ser Ser Gln Tyr Ser Gly Thr Tyr Ala Ser Phe
 145 150 155 160
 Ile Pro Ser Gln Leu Ile Pro Pro Thr Ala Asn Pro Val Thr Ser Ala
 165 170 175
 Val Ala Ser Ala Ala Gly Ala Thr Thr Pro Ser Gln Arg Ser Gln Leu
 180 185 190
 Glu Ala Tyr Ser Thr Leu Leu Ala Asn Met Gly Ser Leu Ser Gln Thr
 195 200 205
 Pro Gly His Lys Ala Glu Gln Gln Gln Gln Gln Gln Gln Gln Gln
 210 215 220
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln His Gln
 225 230 235 240
 Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln His Leu Ser
 245 250 255
 Arg Ala Pro Gly Leu Ile Thr Pro Gly Ser Pro Pro Pro Ala Gln Gln
 260 265 270
 Asn Gln Tyr Val His Ile Ser Ser Ser Pro Gln Asn Thr Gly Arg Thr
 275 280 285
 Ala Ser Pro Pro Ala Ile Pro Val His Leu His Pro His Gln Thr Met
 290 295 300
 Ile Pro His Thr Leu Thr Leu Gly Pro Pro Ser Gln Val Val Met Gln
 305 310 315 320
 Tyr Ala Asp Ser Gly Ser His Phe Val Pro Arg Glu Ala Thr Lys Lys
 325 330 335
 Ala Glu Ser Ser Arg Leu Gln Gln Ala Ile Gln Ala Lys Glu Val Leu
 340 345 350
 Asn Gly Glu Met Glu Lys Ser Arg Arg Tyr Gly Ala Pro Ser Ser Ala
 355 360 365
 Asp Leu Gly Leu Gly Lys Ala Gly Gly Lys Ser Val Pro His Pro Tyr
 370 375 380
 Glu Ser Arg His Val Val Val His Pro Ser Pro Ser Asp Tyr Ser Ser
 385 390 395 400
 Arg Asp Pro Ser Gly Val Arg Ala Ser Val Met Val Leu Pro Asn Ser
 405 410 415
 Asn Thr Pro Ala Ala Asp Leu Glu Val Gln Gln Ala Thr His Arg Glu
 420 425 430
 Ala Ser Pro Ser Thr Leu Asn Asp Lys Ser Gly Leu His Leu Gly Lys
 435 440 445
 Pro Gly His Arg Ser Tyr Ala Leu Ser Pro His Thr Val Ile Gln Thr

450 455 460
 Thr His Ser Ala Ser Glu Pro Leu Pro Val Gly Leu Pro Ala Thr Ala
 465 470 475 480
 Phe Tyr Ala Gly Thr Gln Pro Pro Val Ile Gly Tyr Leu Ser Gly Gln
 485 490 495
 Gln Gln Ala Ile Thr Tyr Ala Gly Ser Leu Pro Gln His Leu Val Ile
 500 505 510
 Pro Gly Thr Gln Pro Leu Leu Ile Pro Val Gly Ser Thr Asp Met Glu
 515 520 525
 Ala Ser Gly Ala Ala Pro Ala Ile Val Thr Ser Ser Pro Gln Phe Ala
 530 535 540
 Ala Val Pro His Thr Phe Val Thr Thr Ala Leu Pro Lys Ser Glu Asn
 545 550 555 560
 Phe Asn Pro Glu Ala Leu Val Thr Gln Ala Ala Tyr Pro Ala Met Val
 565 570 575
 Gln Ala Gln Ile His Leu Pro Val Val Gln Ser Val Ala Ser Pro Ala
 580 585 590
 Ala Ala Pro Pro Thr Leu Pro Pro Tyr Phe Met Lys Gly Ser Ile Ile
 595 600 605
 Gln Leu Ala Asn Gly Glu Leu Lys Lys Val Glu Asp Leu Lys Thr Glu
 610 615 620
 Asp Phe Ile Gln Ser Ala Glu Ile Ser Asn Asp Leu Lys Ile Asp Ser
 625 630 635 640
 Ser Thr Val Glu Arg Ile Glu Asp Ser His Ser Pro Gly Val Ala Val
 645 650 655
 Ile Gln Phe Ala Val Gly Glu His Arg Ala Gln Val Ser Val Glu Val
 660 665 670
 Leu Val Glu Tyr Pro Phe Phe Val Phe Gly Gln Gly Trp Ser Ser Cys
 675 680 685
 Cys Pro Glu Arg Thr Ser Gln Leu Phe Asp Leu Pro Cys Ser Lys Leu
 690 695 700
 Ser Val Gly Asp Val Cys Ile Ser Leu Thr Leu Lys Asn Leu Lys Asn
 705 710 715 720
 Gly Ser Val Lys Lys Gly Gln Pro Val Asp Pro Ala Ser Val Leu Leu
 725 730 735
 Lys His Ser Lys Ala Asp Gly Leu Ala Gly Ser Arg His Arg Tyr Ala
 740 745 750
 Glu Gln Glu Asn Gly Ile Asn Gln Gly Ser Ala Gln Met Leu Ser Glu
 755 760 765
 Asn Gly Glu Leu Lys Phe Pro Glu Lys Met Gly Leu Ser Ala Ala Pro
 770 775 780
 Phe Leu Thr Lys Ile Glu Pro Ser Lys Pro Ala Ala Thr Arg Lys Arg
 785 790 795 800
 Arg Trp Ser Ala Pro Glu Ser Arg Lys Leu Glu Lys Ser Glu Asp Glu
 805 810 815
 Pro Pro Leu Thr Leu Pro Lys Pro Ser Leu Ile Pro Gln Glu Val Lys
 820 825 830
 Ile Cys Ile Glu Gly Arg Ser Asn Val Gly Lys
 835 840 843

<210> 3614
 <211> 36
 <212> PRT
 <213> Homo sapiens

<400> 3614
 Phe Phe Glu Ser Arg Leu Arg Cys Lys Cys Cys Glu Pro Arg Gly Ser
 1 5 10 15
 Trp Ala Arg Phe Gly Cys Trp Arg Leu Gln Pro Glu Phe Lys Pro Lys
 20 25 30
 Gln Leu Glu Gly

35 36

<210> 3615
 <211> 533
 <212> PRT
 <213> Homo sapiens

<400> 3615
 Asp Ala Trp Ala Leu Thr Asn Gln Phe Ser Asp Ser Lys Gln His Ile
 1 5 10 15
 Glu Val Leu Lys Glu Ser Leu Thr Ala Lys Glu Gln Arg Ala Ala Ile
 20 25 30
 Leu Gln Thr Glu Val Asp Ala Leu Arg Leu Arg Leu Glu Glu Lys Glu
 35 40 45
 Thr Met Leu Asn Lys Lys Thr Lys Gln Ile Gln Asp Met Ala Glu Glu
 50 55 60
 Lys Gly Thr Gln Ala Gly Glu Ile His Asp Leu Lys Asp Met Leu Asp
 65 70 75 80
 Val Lys Glu Arg Lys Val Asn Val Leu Gln Lys Lys Ile Glu Asn Leu
 85 90 95
 Gln Glu Gln Leu Arg Asp Lys Glu Lys Gln Met Ser Ser Leu Lys Glu
 100 105 110
 Arg Val Lys Ser Leu Gln Ala Asp Thr Thr Asn Thr Asp Thr Ala Leu
 115 120 125
 Thr Thr Leu Glu Glu Ala Leu Ala Glu Lys Glu Arg Thr Ile Glu Arg
 130 135 140
 Leu Lys Glu Gln Arg Asp Arg Asp Glu Arg Glu Lys Gln Glu Glu Ile
 145 150 155 160
 Asp Asn Tyr Lys Lys Asp Leu Lys Asp Leu Lys Glu Lys Val Ser Leu
 165 170 175
 Leu Gln Gly Asp Leu Ser Glu Lys Glu Ala Ser Leu Leu Asp Leu Lys
 180 185 190
 Glu His Ala Ser Ser Leu Ala Ser Ser Gly Leu Lys Lys Asp Ser Arg
 195 200 205
 Leu Lys Thr Leu Glu Ile Ala Leu Glu Gln Lys Lys Glu Glu Cys Leu
 210 215 220
 Lys Met Glu Ser Gln Leu Lys Lys Ala His Glu Ala Ala Leu Glu Ala
 225 230 235 240
 Arg Ala Ser Pro Glu Met Ser Asp Arg Ile Gln His Leu Glu Arg Glu
 245 250 255
 Ile Thr Arg Tyr Lys Asp Glu Ser Ser Lys Ala Gln Ala Glu Val Asp
 260 265 270
 Arg Leu Leu Glu Ile Leu Lys Glu Val Glu Asn Glu Lys Asn Asp Lys
 275 280 285
 Asp Lys Lys Ile Ala Glu Leu Glu Ser Leu Thr Ser Arg Gln Val Lys
 290 295 300
 Asp Gln Asn Lys Lys Val Ala Asn Leu Lys His Lys Glu Gln Val Glu
 305 310 315 320
 Lys Lys Lys Ser Ala Gln Met Leu Glu Glu Ala Arg Arg Arg Glu Asp
 325 330 335
 Asn Leu Asn Asp Ser Ser Gln Gln Leu Gln Asp Ser Leu Arg Lys Lys
 340 345 350
 Asp Asp Arg Ile Glu Glu Leu Glu Glu Ala Leu Arg Glu Ser Val Gln
 355 360 365
 Ile Thr Ala Glu Arg Glu Met Val Leu Ala Gln Glu Glu Ser Ala Arg
 370 375 380
 Thr Asn Ala Glu Lys Gln Val Glu Glu Leu Leu Met Ala Met Glu Lys
 385 390 395 400
 Val Lys Gln Glu Leu Glu Ser Met Lys Ala Lys Leu Ser Ser Thr Gln
 405 410 415
 Gln Ser Leu Ala Glu Lys Glu Thr His Leu Thr Asn Leu Arg Ala Glu

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<210> 3616
<211> 392
<212> PRT
<213> Homo sapiens
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5382

305		310		315		320									
Gln	Pro	Trp	Thr	Lys	Arg	Leu	Val	Met	Val	Lys	Val	Val	Pro	Thr	Cys
				325					330					335	
Leu	Arg	Ala	Leu	Val	Glu	Met	Ala	Arg	Val	Gly	Gly	Ala	Ser	Ser	Leu
			340					345					350		
Glu	Asn	Thr	Val	Asp	Leu	His	Ile	Ser	Asn	Ser	His	Pro	Leu	Ser	Leu
		355					360					365			
Thr	Ser	Asp	Gln	Tyr	Lys	Ala	Tyr	Leu	Gln	Asp	Leu	Val	Glu	Gly	Met
	370					375					380				
Asp	Phe	Gln	Gly	Pro	Gly	Glu	Ser								
385					390		392								

<210> 3617
 <211> 183
 <212> PRT
 <213> Homo sapiens

<400> 3617

Arg	Gly	Gly	Leu	Leu	Ser	Lys	Met	Ala	Arg	Val	Leu	Lys	Ala	Ala	Ala
1				5					10					15	
Ala	Asn	Ala	Val	Gly	Leu	Phe	Ser	Arg	Leu	Gln	Ala	Pro	Ile	Pro	Thr
			20					25					30		
Val	Arg	Ala	Ser	Ser	Thr	Ser	Gln	Pro	Leu	Asp	Gln	Val	Thr	Gly	Ser
		35				40					45				
Val	Trp	Asn	Leu	Gly	Arg	Leu	Asn	His	Val	Ala	Ile	Ala	Val	Pro	Asp
	50					55					60				
Leu	Glu	Lys	Ala	Ala	Ala	Phe	Tyr	Lys	Asn	Ile	Leu	Gly	Ala	Gln	Val
	65				70					75				80	
Ser	Glu	Ala	Val	Pro	Leu	Pro	Glu	His	Gly	Val	Ser	Val	Val	Phe	Val
			85						90					95	
Asn	Leu	Gly	Asn	Thr	Lys	Met	Glu	Leu	Leu	His	Pro	Leu	Gly	Arg	Asp
			100					105					110		
Ser	Pro	Ile	Ala	Gly	Phe	Leu	Gln	Lys	Asn	Lys	Ala	Gly	Gly	Met	His
		115					120					125			
His	Ile	Cys	Ile	Glu	Val	Asp	Asn	Ile	Asn	Ala	Ala	Val	Met	Asp	Leu
	130					135					140				
Lys	Lys	Lys	Lys	Ile	Arg	Ser	Leu	Ser	Glu	Glu	Val	Lys	Ile	Gly	Ala
	145				150					155				160	
His	Gly	Lys	Pro	Val	Ile	Phe	Leu	His	Pro	Lys	Asp	Cys	Gly	Gly	Val
			165						170					175	
Leu	Val	Glu	Leu	Glu	Gln	Ala									
			180			183									

<210> 3618
 <211> 1996
 <212> PRT
 <213> Homo sapiens

<400> 3618

Asp	Asn	Ile	Asp	Glu	Thr	Tyr	Gly	Val	Asn	Val	Gln	Phe	Glu	Ser	Asp
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Glu	Glu	Glu	Gly	Asp	Glu	Asp	Val	Tyr	Gly	Glu	Val	Arg	Glu	Glu	Ala
			20					25					30		
Ser	Asp	Asp	Asp	Met	Glu	Gly	Asp	Glu	Ala	Val	Val	Arg	Cys	Thr	Leu
		35				40						45			
Ser	Ala	Asn	Met	Tyr	Val	Asp	Glu	Ile	Leu	Val	Trp	Cys	Ala	Ser	Glu
	50					55					60				
Leu	Asn	Ile	Pro	Glu	Phe	Phe	Pro	Leu	Glu	Ser	Pro	His	Lys	Lys	Val

65					70					75					80
Gly	Tyr	Gly	Leu	Ser	Ser	Arg	Thr	Trp	Leu	Gln	Gly	Gly	Gly	Lys	Val
				85					90					95	
Ile	Glu	Ala	Gly	Arg	Asp	Leu	Leu	Val	Ala	Ser	Gly	Glu	Leu	Met	Ser
			100					105					110		
Ser	Lys	Lys	Lys	Asp	Leu	His	Pro	Arg	Asp	Ile	Asp	Ala	Phe	Trp	Leu
		115					120					125			
Gln	Arg	Gln	Leu	Ser	Arg	Phe	Tyr	Asp	Asp	Ala	Ile	Val	Ser	Gln	Lys
	130					135					140				
Lys	Ala	Asp	Glu	Val	Leu	Glu	Ile	Leu	Lys	Thr	Ala	Ser	Asp	Asp	Arg
145					150					155					160
Glu	Cys	Glu	Asn	Gln	Leu	Val	Leu	Leu	Leu	Gly	Phe	Asn	Thr	Phe	Asp
			165						170					175	
Phe	Ile	Lys	Val	Leu	Arg	Gln	His	Arg	Met	Met	Ile	Leu	Tyr	Cys	Thr
		180						185					190		
Leu	Leu	Ala	Ser	Ala	Gln	Ser	Glu	Ala	Glu	Lys	Glu	Arg	Ile	Met	Gly
	195						200					205			
Lys	Met	Glu	Ala	Asp	Pro	Glu	Leu	Ser	Lys	Phe	Leu	Tyr	Gln	Leu	His
	210					215						220			
Glu	Thr	Glu	Lys	Glu	Asp	Leu	Ile	Arg	Glu	Glu	Arg	Ser	Arg	Arg	Glu
225					230					235					240
Arg	Val	Arg	Gln	Ser	Arg	Met	Asp	Thr	Asp	Leu	Glu	Thr	Met	Asp	Leu
			245						250					255	
Asp	Gln	Gly	Gly	Glu	Ala	Leu	Ala	Pro	Arg	Gln	Val	Leu	Asp	Leu	Glu
		260						265					270		
Asp	Leu	Val	Phe	Thr	Gln	Gly	Ser	His	Phe	Met	Ala	Asn	Lys	Arg	Cys
	275						280					285			
Gln	Leu	Pro	Asp	Gly	Ser	Phe	Arg	Arg	Gln	Arg	Lys	Gly	Tyr	Glu	Glu
	290					295					300				
Val	His	Val	Pro	Ala	Leu	Lys	Pro	Lys	Pro	Phe	Gly	Ser	Glu	Glu	Gln
305					310					315					320
Leu	Leu	Pro	Val	Glu	Lys	Leu	Pro	Lys	Tyr	Ala	Gln	Ala	Gly	Phe	Glu
			325						330					335	
Gly	Phe	Lys	Thr	Leu	Asn	Arg	Ile	Gln	Ser	Lys	Leu	Tyr	Arg	Ala	Ala
		340						345					350		
Leu	Glu	Thr	Asp	Glu	Asn	Leu	Leu	Leu	Cys	Ala	Pro	Thr	Gly	Ala	Gly
	355						360					365			
Lys	Thr	Asn	Val	Ala	Leu	Met	Cys	Met	Leu	Arg	Glu	Ile	Gly	Lys	His
	370					375					380				
Ile	Asn	Met	Asp	Gly	Thr	Ile	Asn	Val	Asp	Asp	Phe	Lys	Ile	Ile	Tyr
385					390					395					400
Ile	Ala	Pro	Met	Arg	Ser	Leu	Val	Gln	Glu	Met	Val	Gly	Ser	Phe	Gly
			405						410					415	
Lys	Arg	Leu	Ala	Thr	Tyr	Gly	Ile	Thr	Val	Ala	Glu	Leu	Thr	Gly	Asp
		420						425					430		
His	Gln	Leu	Cys	Lys	Glu	Glu	Ile	Ser	Ala	Thr	Gln	Ile	Ile	Val	Cys
	435						440					445			
Thr	Pro	Glu	Lys	Trp	Asp	Ile	Ile	Thr	Arg	Lys	Gly	Gly	Glu	Arg	Thr
	450					455					460				
Tyr	Thr	Gln	Leu	Val	Arg	Leu	Ile	Ile	Leu	Asp	Glu	Ile	His	Leu	Leu
465					470					475					480
His	Asp	Asp	Arg	Gly	Pro	Val	Leu	Glu	Ala	Leu	Val	Ala	Arg	Ala	Ile
			485						490					495	
Arg	Asn	Ile	Glu	Met	Thr	Gln	Glu	Asp	Val	Arg	Leu	Ile	Gly	Leu	Ser
		500						505					510		
Ala	Thr	Leu	Pro	Asn	Tyr	Glu	Asp	Val	Ala	Thr	Phe	Leu	Arg	Val	Asp
	515						520					525			
Pro	Ala	Lys	Gly	Leu	Phe	Tyr	Phe	Asp	Asn	Ser	Phe	Arg	Pro	Val	Pro
	530					535					540				
Leu	Glu	Gln	Thr	Tyr	Val	Gly	Ile	Thr	Glu	Lys	Lys	Ala	Ile	Lys	Arg
545					550					555					560
Phe	Gln	Ile	Met	Asn	Glu	Ile	Val	Tyr	Glu	Lys	Ile	Met	Glu	His	Ala
			565						570					575	
Gly	Lys	Asn	Gln	Val	Leu	Val	Phe	Val	His	Ser	Arg	Lys	Glu	Thr	Gly

5385

1090 1095 1100
Tyr Ala Gln Asp Glu His Leu Ile Thr Phe Phe Val Pro Val Phe Glu
1105 1110 1115 1120
Pro Leu Pro Pro Gln Tyr Phe Ile Arg Val Val Ser Asp Arg Trp Leu
1125 1130 1135
Ser Cys Glu Thr Gln Leu Pro Val Ser Phe Arg His Leu Ile Leu Pro
1140 1145 1150
Glu Lys Tyr Pro Pro Pro Thr Glu Leu Leu Asp Leu Gln Pro Leu Pro
1155 1160 1165
Val Ser Ala Leu Arg Asn Ser Ala Phe Glu Ser Leu Tyr Gln Asp Lys
1170 1175 1180
Phe Pro Phe Phe Asn Pro Ile Gln Thr Gln Val Phe Asn Thr Val Tyr
1185 1190 1195 1200
Asn Ser Asp Asp Asn Val Phe Val Gly Ala Pro Thr Gly Ser Gly Lys
1205 1210 1215
Thr Ile Cys Ala Glu Phe Ala Ile Leu Arg Met Leu Leu Gln Asn Ser
1220 1225 1230
Glu Gly Arg Cys Val Tyr Ile Thr Pro Met Arg Leu Trp Gln Glu Gln
1235 1240 1245
Val Tyr Met Asp Trp Tyr Glu Lys Phe Gln Asp Arg Leu Asn Lys Lys
1250 1255 1260
Val Val Leu Leu Thr Gly Glu Thr Ser Thr Asp Leu Lys Leu Leu Gly
1265 1270 1275 1280
Lys Gly Asn Ile Ile Ile Ser Thr Pro Glu Lys Trp Asp Ile Leu Ser
1285 1290 1295
Arg Arg Trp Lys Gln Arg Lys Asn Val Gln Asn Ile Asn Leu Phe Val
1300 1305 1310
Val Asp Glu Val His Leu Ile Gly Gly Glu Asn Gly Pro Val Leu Glu
1315 1320 1325
Val Ile Cys Ser Arg Met Arg Tyr Ile Ser Ser Gln Ile Glu Arg Pro
1330 1335 1340
Ile Arg Ile Val Ala Leu Ser Ser Ser Leu Ser Asn Ala Lys Asp Val
1345 1350 1355 1360
Ala His Trp Leu Gly Cys Ser Ala Thr Ser Thr Phe Asn Phe His Pro
1365 1370 1375
Asn Val Arg Pro Val Pro Leu Glu Leu His Ile Gln Gly Phe Asn Ile
1380 1385 1390
Ser His Thr Gln Thr Arg Leu Leu Ser Met Ala Lys Pro Val Phe His
1395 1400 1405
Ala Ile Thr Lys His Ser Pro Lys Lys Pro Val Ile Val Phe Val Pro
1410 1415 1420
Ser Arg Lys Gln Thr Arg Leu Thr Ala Ile Asp Ile Leu Thr Thr Cys
1425 1430 1435 1440
Ala Ala Asp Ile Gln Arg Gln Arg Phe Leu His Cys Thr Glu Lys Asp
1445 1450 1455
Leu Ile Pro Tyr Leu Glu Lys Leu Ser Asp Ser Thr Leu Lys Glu Thr
1460 1465 1470
Leu Leu Asn Gly Val Gly Tyr Leu His Glu Gly Leu Ser Pro Met Glu
1475 1480 1485
Arg Arg Leu Val Glu Gln Leu Phe Ser Ser Gly Ala Ile Gln Val Val
1490 1495 1500
Val Ala Ser Arg Ser Leu Cys Trp Gly Met Asn Val Ala Ala His Leu
1505 1510 1515 1520
Val Ile Ile Met Asp Thr Leu Tyr Tyr Asn Gly Lys Ile His Ala Tyr
1525 1530 1535
Val Asp Tyr Pro Ile Tyr Asp Val Leu Gln Met Val Gly His Ala Asn
1540 1545 1550
Arg Pro Leu Gln Asp Asp Glu Gly Arg Cys Val Ile Met Cys Gln Gly
1555 1560 1565
Ser Lys Lys Asp Phe Phe Lys Lys Phe Leu Tyr Glu Pro Leu Pro Val
1570 1575 1580
Glu Ser His Leu Asp His Cys Met His Asp His Phe Asn Ala Glu Ile
1585 1590 1595 1600
Val Thr Lys Thr Ile Glu Asn Lys Gln Asp Ala Val Asp Tyr Leu Thr

1605 1610 1615
 Trp Thr Phe Leu Tyr Arg Arg Met Thr Gln Asn Pro Asn Tyr Tyr Asn
 1620 1625 1630
 Leu Gln Gly Ile Ser His Arg His Leu Ser Asp His Leu Ser Glu Leu
 1635 1640 1645
 Val Glu Gln Thr Leu Ser Asp Leu Glu Gln Ser Lys Cys Ile Ser Ile
 1650 1655 1660
 Glu Asp Glu Met Asp Val Ala Pro Leu Asn Leu Gly Met Ile Ala Ala
 1665 1670 1675 1680
 Tyr Tyr Tyr Ile Asn Tyr Thr Thr Ile Glu Leu Phe Ser Met Ser Leu
 1685 1690 1695
 Asn Ala Lys Thr Lys Val Arg Gly Leu Ile Glu Ile Ile Ser Asn Ala
 1700 1705 1710
 Ala Glu Tyr Glu Asn Ile Pro Ile Arg His His Glu Asp Asn Leu Leu
 1715 1720 1725
 Arg Gln Leu Ala Gln Lys Val Pro His Lys Leu Asn Asn Pro Lys Phe
 1730 1735 1740
 Asn Asp Pro His Val Lys Thr Asn Leu Leu Leu Gln Ala His Leu Ser
 1745 1750 1755 1760
 Arg Met Gln Leu Ser Ala Glu Leu Gln Ser Asp Thr Glu Glu Ile Leu
 1765 1770 1775
 Ser Lys Ala Ile Arg Leu Ile Gln Ala Cys Val Asp Val Leu Ser Ser
 1780 1785 1790
 Asn Gly Trp Leu Ser Pro Ala Leu Ala Ala Met Glu Leu Ala Gln Met
 1795 1800 1805
 Val Thr Gln Ala Met Trp Ser Glu Asp Ser Tyr Leu Arg Arg Leu Pro
 1810 1815 1820
 Pro Phe Pro Ser Gly Leu Phe Lys Arg Cys Thr Asp Lys Gly Val Glu
 1825 1830 1835 1840
 Ser Val Phe Asp Ile Met Glu Met Glu Asp Glu Glu Arg Asn Ala Leu
 1845 1850 1855
 Leu Gln Leu Thr Asp Ser Gln Ile Ala Asp Val Ala Arg Phe Cys Asn
 1860 1865 1870
 Arg Tyr Pro Asn Ile Glu Leu Ser Tyr Glu Val Val Asp Lys Asp Ser
 1875 1880 1885
 Ile Arg Ser Gly Gly Pro Val Val Val Leu Val Gln Leu Glu Arg Glu
 1890 1895 1900
 Glu Glu Val Thr Gly Pro Val Ile Ala Pro Leu Phe Pro Gln Lys Arg
 1905 1910 1915 1920
 Glu Glu Gly Trp Trp Val Val Ile Gly Asp Ala Lys Ser Asn Ser Leu
 1925 1930 1935
 Ile Ser Ile Lys Arg Leu Thr Leu Gln Gln Lys Ala Lys Val Lys Leu
 1940 1945 1950
 Asp Phe Val Ala Pro Ala Thr Gly Gly Arg His Asn Thr Leu Tyr Phe
 1955 1960 1965
 Met Ser Asp Ala Tyr Met Gly Cys Asp Gln Glu Tyr Lys Phe Ser Val
 1970 1975 1980
 Asp Val Lys Glu Ala Glu Thr Asp Ser Asp Ser Asp
 1985 1990 1995 1996

<210> 3619

<211> 1996

<212> PRT

<213> Homo sapiens

<400> 3619

Asp Asn Ile Asp Glu Thr Tyr Gly Val Asn Val Gln Phe Glu Ser Asp
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 Glu Glu Glu Gly Asp Glu Asp Val Tyr Gly Glu Val Arg Glu Glu Ala
 20 25 30
 Ser Asp Asp Asp Met Glu Gly Asp Glu Ala Val Val Arg Cys Thr Leu

	35					40				45					
Ser	Ala	Asn	Met	Tyr	Val	Asp	Glu	Ile	Leu	Val	Trp	Cys	Ala	Ser	Glu
50						55					60				
Leu	Asn	Ile	Pro	Glu	Phe	Phe	Pro	Leu	Glu	Ser	Pro	His	Lys	Lys	Val
65					70					75					80
Gly	Tyr	Gly	Leu	Ser	Ser	Arg	Thr	Trp	Leu	Gln	Gly	Gly	Gly	Lys	Val
				85					90						95
Ile	Glu	Ala	Gly	Arg	Asp	Leu	Leu	Val	Ala	Ser	Gly	Glu	Leu	Met	Ser
			100					105					110		
Ser	Lys	Lys	Lys	Asp	Leu	His	Pro	Arg	Asp	Ile	Asp	Ala	Phe	Trp	Leu
		115					120					125			
Gln	Arg	Gln	Leu	Ser	Arg	Phe	Tyr	Asp	Asp	Ala	Ile	Val	Ser	Gln	Lys
	130					135					140				
Lys	Ala	Asp	Glu	Val	Leu	Glu	Ile	Leu	Lys	Thr	Ala	Ser	Asp	Asp	Arg
145					150					155					160
Glu	Cys	Glu	Asn	Gln	Leu	Val	Leu	Leu	Leu	Gly	Phe	Asn	Thr	Phe	Asp
			165						170						175
Phe	Ile	Lys	Val	Leu	Arg	Gln	His	Arg	Met	Met	Ile	Leu	Tyr	Cys	Thr
			180					185							190
Leu	Leu	Ala	Ser	Ala	Gln	Ser	Glu	Ala	Glu	Lys	Glu	Arg	Ile	Met	Gly
		195					200					205			
Lys	Met	Glu	Ala	Asp	Pro	Glu	Leu	Ser	Lys	Phe	Leu	Tyr	Gln	Leu	His
	210					215					220				
Glu	Thr	Glu	Lys	Glu	Asp	Leu	Ile	Arg	Glu	Glu	Arg	Ser	Arg	Arg	Glu
225					230					235					240
Arg	Val	Arg	Gln	Ser	Arg	Met	Asp	Thr	Asp	Leu	Glu	Thr	Met	Asp	Leu
			245						250						255
Asp	Gln	Gly	Gly	Glu	Ala	Leu	Ala	Pro	Arg	Gln	Val	Leu	Asp	Leu	Glu
			260					265					270		
Asp	Leu	Val	Phe	Thr	Gln	Gly	Ser	His	Phe	Met	Ala	Asn	Lys	Arg	Cys
	275						280					285			
Gln	Leu	Pro	Asp	Gly	Ser	Phe	Arg	Arg	Gln	Arg	Lys	Gly	Tyr	Glu	Glu
	290					295					300				
Val	His	Val	Pro	Ala	Leu	Lys	Pro	Lys	Pro	Phe	Gly	Ser	Glu	Glu	Gln
305					310					315					320
Leu	Leu	Pro	Val	Glu	Lys	Leu	Pro	Lys	Tyr	Ala	Gln	Ala	Gly	Phe	Glu
			325						330						335
Gly	Phe	Lys	Thr	Leu	Asn	Arg	Ile	Gln	Ser	Lys	Leu	Tyr	Arg	Ala	Ala
			340					345					350		
Leu	Glu	Thr	Asp	Glu	Asn	Leu	Leu	Leu	Cys	Ala	Pro	Thr	Gly	Ala	Gly
	355						360					365			
Lys	Thr	Asn	Val	Ala	Leu	Met	Cys	Met	Leu	Arg	Glu	Ile	Gly	Lys	His
	370					375					380				
Ile	Asn	Met	Asp	Gly	Thr	Ile	Asn	Val	Asp	Asp	Phe	Lys	Ile	Ile	Tyr
385					390				395						400
Ile	Ala	Pro	Met	Arg	Ser	Leu	Val	Gln	Glu	Met	Val	Gly	Ser	Phe	Gly
			405						410						415
Lys	Arg	Leu	Ala	Thr	Tyr	Gly	Ile	Thr	Val	Ala	Glu	Leu	Thr	Gly	Asp
			420					425					430		
His	Gln	Leu	Cys	Lys	Glu	Glu	Ile	Ser	Ala	Thr	Gln	Ile	Ile	Val	Cys
		435					440					445			
Thr	Pro	Glu	Lys	Trp	Asp	Ile	Ile	Thr	Arg	Lys	Gly	Gly	Glu	Arg	Thr
	450					455					460				
Tyr	Thr	Gln	Leu	Val	Arg	Leu	Ile	Ile	Leu	Asp	Glu	Ile	His	Leu	Leu
465					470				475						480
His	Asp	Asp	Arg	Gly	Pro	Val	Leu	Glu	Ala	Leu	Val	Ala	Arg	Ala	Ile
			485						490						495
Arg	Asn	Ile	Glu	Met	Thr	Gln	Glu	Asp	Val	Arg	Leu	Ile	Gly	Leu	Ser
		500						505					510		
Ala	Thr	Leu	Pro	Asn	Tyr	Glu	Asp	Val	Ala	Thr	Phe	Leu	Arg	Val	Asp
		515					520					525			
Pro	Ala	Lys	Gly	Leu	Phe	Tyr	Phe	Asp	Asn	Ser	Phe	Arg	Pro	Val	Pro
	530					535					540				
Leu	Glu	Gln	Thr	Tyr	Val	Gly	Ile	Thr	Glu	Lys	Lys	Ala	Ile	Lys	Arg

545					550					555				560
Phe	Gln	Ile	Met	Asn	Glu	Ile	Val	Tyr	Glu	Lys	Ile	Met	Glu	His
				565					570					575
Gly	Lys	Asn	Gln	Val	Leu	Val	Phe	Val	His	Ser	Arg	Lys	Glu	Thr
			580					585					590	
Lys	Thr	Ala	Arg	Ala	Ile	Arg	Asp	Met	Cys	Leu	Glu	Lys	Asp	Thr
		595					600					605		
Gly	Leu	Phe	Leu	Arg	Glu	Gly	Ser	Ala	Ser	Thr	Glu	Val	Leu	Arg
	610					615					620			
Glu	Ala	Glu	Gln	Cys	Lys	Asn	Leu	Glu	Leu	Lys	Asp	Leu	Leu	Pro
625					630					635				640
Gly	Phe	Ala	Ile	His	His	Ala	Gly	Met	Thr	Arg	Val	Asp	Arg	Thr
			645						650					655
Val	Glu	Asp	Leu	Phe	Gly	Asp	Lys	His	Ile	Gln	Val	Leu	Val	Ser
		660						665					670	
Ala	Thr	Leu	Ala	Trp	Gly	Val	Asn	Leu	Pro	Ala	His	Thr	Val	Ile
	675						680						685	
Lys	Gly	Thr	Gln	Val	Tyr	Ser	Pro	Glu	Lys	Gly	Arg	Trp	Thr	Glu
	690					695					700			
Gly	Ala	Leu	Asp	Ile	Leu	Gln	Met	Leu	Gly	Arg	Ala	Gly	Arg	Pro
705				710					715					720
Tyr	Asp	Thr	Lys	Gly	Glu	Gly	Ile	Leu	Ile	Thr	Ser	His	Gly	Glu
			725						730					735
Gln	Tyr	Tyr	Leu	Ser	Leu	Leu	Asn	Gln	Gln	Leu	Pro	Ile	Glu	Ser
			740					745					750	
Met	Val	Ser	Lys	Leu	Pro	Asp	Met	Leu	Asn	Ala	Glu	Ile	Val	Leu
	755					760					765			
Asn	Val	Gln	Asn	Ala	Lys	Asp	Ala	Val	Asn	Trp	Leu	Gly	Tyr	Ala
	770					775					780			
Leu	Tyr	Ile	Arg	Met	Leu	Arg	Ser	Pro	Thr	Leu	Tyr	Gly	Ile	Ser
785				790					795					800
Asp	Asp	Leu	Lys	Gly	Asp	Pro	Leu	Leu	Asp	Gln	Arg	Arg	Leu	Asp
			805						810					815
Val	His	Thr	Ala	Ala	Leu	Met	Leu	Asp	Lys	Asn	Asn	Leu	Val	Lys
			820					825					830	
Asp	Lys	Lys	Thr	Gly	Asn	Phe	Gln	Val	Thr	Glu	Leu	Gly	Arg	Ile
	835						840						845	
Ser	His	Tyr	Tyr	Ile	Thr	Asn	Asp	Thr	Val	Gln	Thr	Tyr	Asn	Gln
	850					855					860			
Leu	Lys	Pro	Thr	Leu	Ser	Glu	Ile	Glu	Leu	Phe	Arg	Val	Phe	Ser
865				870					875					880
Ser	Ser	Glu	Phe	Lys	Asn	Ile	Thr	Val	Arg	Glu	Glu	Glu	Lys	Leu
			885						890					895
Leu	Gln	Lys	Leu	Leu	Glu	Arg	Val	Pro	Ile	Pro	Val	Lys	Glu	Ser
		900						905					910	
Glu	Glu	Pro	Ser	Ala	Lys	Ile	Asn	Val	Leu	Leu	Gln	Ala	Phe	Ile
	915						920					925		
Gln	Leu	Lys	Leu	Glu	Gly	Phe	Ala	Leu	Met	Ala	Asp	Met	Val	Tyr
	930				935						940			
Thr	Gln	Ser	Ala	Gly	Arg	Leu	Met	Arg	Ala	Ile	Phe	Glu	Ile	Val
945					950					955				960
Asn	Arg	Gly	Trp	Ala	Gln	Leu	Thr	Asp	Lys	Thr	Leu	Asn	Leu	Cys
			965					970						975
Met	Ile	Asp	Lys	Arg	Met	Trp	Gln	Ser	Met	Cys	Pro	Leu	Arg	Gln
		980						985					990	
Arg	Lys	Leu	Pro	Glu	Glu	Val	Val	Lys	Lys	Ile	Glu	Lys	Lys	Asn
	995					1000					1005			
Pro	Phe	Glu	Arg	Leu	Tyr	Asp	Leu	Asn	His	Asn	Glu	Ile	Gly	Glu
	1010				1015					1020				
Ile	Arg	Met	Pro	Lys	Met	Gly	Lys	Thr	Ile	His	Lys	Tyr	Val	His
1025				1030					1035					1040
Phe	Pro	Lys	Leu	Glu	Leu	Ser	Val	His	Leu	Gln	Pro	Ile	Thr	Arg
			1045					1050						1055
Thr	Leu	Lys	Val	Glu	Leu	Thr	Ile	Thr	Pro	Asp	Phe	Gln	Trp	Asp

	1060		1065		1070
Lys Val His Gly Ser Ser Glu Ala Phe Trp Ile Leu Val Glu Asp Val					
1075		1080		1085	
Asp Ser Glu Val Ile Leu His His Glu Tyr Phe Leu Leu Lys Ala Lys					
1090		1095		1100	
Tyr Ala Gln Asp Glu His Leu Ile Thr Phe Phe Val Pro Val Phe Glu					
1105		1110		1115	1120
Pro Leu Pro Pro Gln Tyr Phe Ile Arg Val Val Ser Asp Arg Trp Leu					
	1125		1130		1135
Ser Cys Glu Thr Gln Leu Pro Val Ser Phe Arg His Leu Ile Leu Pro					
	1140		1145		1150
Glu Lys Tyr Pro Pro Pro Thr Glu Leu Leu Asp Leu Gln Pro Leu Pro					
	1155		1160		1165
Val Ser Ala Leu Arg Asn Ser Ala Phe Glu Ser Leu Tyr Gln Asp Lys					
1170		1175		1180	
Phe Pro Phe Phe Asn Pro Ile Gln Thr Gln Val Phe Asn Thr Val Tyr					
1185		1190		1195	1200
Asn Ser Asp Asp Asn Val Phe Val Gly Ala Pro Thr Gly Ser Gly Lys					
	1205		1210		1215
Thr Ile Cys Ala Glu Phe Ala Ile Leu Arg Met Leu Leu Gln Asn Ser					
	1220		1225		1230
Glu Gly Arg Cys Val Tyr Ile Thr Pro Met Arg Leu Trp Gln Glu Gln					
	1235		1240		1245
Val Tyr Met Asp Trp Tyr Glu Lys Phe Gln Asp Arg Leu Asn Lys Lys					
1250		1255		1260	
Val Val Leu Leu Thr Gly Glu Thr Ser Thr Asp Leu Lys Leu Leu Gly					
1265		1270		1275	1280
Lys Gly Asn Ile Ile Ile Ser Thr Pro Glu Lys Trp Asp Ile Leu Ser					
	1285		1290		1295
Arg Arg Trp Lys Gln Arg Lys Asn Val Gln Asn Ile Asn Leu Phe Val					
	1300		1305		1310
Val Asp Glu Val His Leu Ile Gly Gly Glu Asn Gly Pro Val Leu Glu					
	1315		1320		1325
Val Ile Cys Ser Arg Met Arg Tyr Ile Ser Ser Gln Ile Glu Arg Pro					
1330		1335		1340	
Ile Arg Ile Val Ala Leu Ser Ser Ser Leu Ser Asn Ala Lys Asp Val					
1345		1350		1355	1360
Ala His Trp Leu Gly Cys Ser Ala Thr Ser Thr Phe Asn Phe His Pro					
	1365		1370		1375
Asn Val Arg Pro Val Pro Leu Glu Leu His Ile Gln Gly Phe Asn Ile					
	1380		1385		1390
Ser His Thr Gln Thr Arg Leu Leu Ser Met Ala Lys Pro Val Phe His					
1395		1400		1405	
Ala Ile Thr Lys His Ser Pro Lys Lys Pro Val Ile Val Phe Val Pro					
	1410		1415		1420
Ser Arg Lys Gln Thr Arg Leu Thr Ala Ile Asp Ile Leu Thr Thr Cys					
1425		1430		1435	1440
Ala Ala Asp Ile Gln Arg Gln Arg Phe Leu His Cys Thr Glu Lys Asp					
	1445		1450		1455
Leu Ile Pro Tyr Leu Glu Lys Leu Ser Asp Ser Thr Leu Lys Glu Thr					
	1460		1465		1470
Leu Leu Asn Gly Val Gly Tyr Leu His Glu Gly Leu Ser Pro Met Glu					
	1475		1480		1485
Arg Arg Leu Val Glu Gln Leu Phe Ser Ser Gly Ala Ile Gln Val Val					
1490		1495		1500	
Val Ala Ser Arg Ser Leu Cys Trp Gly Met Asn Val Ala Ala His Leu					
1505		1510		1515	1520
Val Ile Ile Met Asp Thr Leu Tyr Tyr Asn Gly Lys Ile His Ala Tyr					
	1525		1530		1535
Val Asp Tyr Pro Ile Tyr Asp Val Leu Gln Met Val Gly His Ala Asn					
	1540		1545		1550
Arg Pro Leu Gln Asp Asp Glu Gly Arg Cys Val Ile Met Cys Gln Gly					
	1555		1560		1565
Ser Lys Lys Asp Phe Phe Lys Lys Phe Leu Tyr Glu Pro Leu Pro Val					

1570 1575 1580
 Glu Ser His Leu Asp His Cys Met His Asp His Phe Asn Ala Glu Ile
 1585 1590 1595 1600
 Val Thr Lys Thr Ile Glu Asn Lys Gln Asp Ala Val Asp Tyr Leu Thr
 1605 1610 1615
 Trp Thr Phe Leu Tyr Arg Arg Met Thr Gln Asn Pro Asn Tyr Tyr Asn
 1620 1625 1630
 Leu Gln Gly Ile Ser His Arg His Leu Ser Asp His Leu Ser Glu Leu
 1635 1640 1645
 Val Glu Gln Thr Leu Ser Asp Leu Glu Gln Ser Lys Cys Ile Ser Ile
 1650 1655 1660
 Glu Asp Glu Met Asp Val Ala Pro Leu Asn Leu Gly Met Ile Ala Ala
 1665 1670 1675 1680
 Tyr Tyr Tyr Ile Asn Tyr Thr Thr Ile Glu Leu Phe Ser Met Ser Leu
 1685 1690 1695
 Asn Ala Lys Thr Lys Val Arg Gly Leu Ile Glu Ile Ile Ser Asn Ala
 1700 1705 1710
 Ala Glu Tyr Glu Asn Ile Pro Ile Arg His His Glu Asp Asn Leu Leu
 1715 1720 1725
 Arg Gln Leu Ala Gln Lys Val Pro His Lys Leu Asn Asn Pro Lys Phe
 1730 1735 1740
 Asn Asp Pro His Val Lys Thr Asn Leu Leu Leu Gln Ala His Leu Ser
 1745 1750 1755 1760
 Arg Met Gln Leu Ser Ala Glu Leu Gln Ser Asp Thr Glu Glu Ile Leu
 1765 1770 1775
 Ser Lys Ala Ile Arg Leu Ile Gln Ala Cys Val Asp Val Leu Ser Ser
 1780 1785 1790
 Asn Gly Trp Leu Ser Pro Ala Leu Ala Ala Met Glu Leu Ala Gln Met
 1795 1800 1805
 Val Thr Gln Ala Met Trp Ser Glu Asp Ser Tyr Leu Arg Arg Leu Pro
 1810 1815 1820
 Pro Phe Pro Ser Gly Leu Phe Lys Arg Cys Thr Asp Lys Gly Val Glu
 1825 1830 1835 1840
 Ser Val Phe Asp Ile Met Glu Met Glu Asp Glu Glu Arg Asn Ala Leu
 1845 1850 1855
 Leu Gln Leu Thr Asp Ser Gln Ile Ala Asp Val Ala Arg Phe Cys Asn
 1860 1865 1870
 Arg Tyr Pro Asn Ile Glu Leu Ser Tyr Glu Val Val Asp Lys Asp Ser
 1875 1880 1885
 Ile Arg Ser Gly Gly Pro Val Val Leu Val Gln Leu Glu Arg Glu
 1890 1895 1900
 Glu Glu Val Thr Gly Pro Val Ile Ala Pro Leu Phe Pro Gln Lys Arg
 1905 1910 1915 1920
 Glu Glu Gly Trp Trp Val Val Ile Gly Asp Ala Lys Ser Asn Ser Leu
 1925 1930 1935
 Ile Ser Ile Lys Arg Leu Thr Leu Gln Gln Lys Ala Lys Val Lys Leu
 1940 1945 1950
 Asp Phe Val Ala Pro Ala Thr Gly Gly Arg His Asn Thr Leu Tyr Phe
 1955 1960 1965
 Met Ser Asp Ala Tyr Met Gly Cys Asp Gln Glu Tyr Lys Phe Ser Val
 1970 1975 1980
 Asp Val Lys Glu Ala Glu Thr Asp Ser Asp Ser Asp
 1985 1990 19951996

<210> 3620

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3620

Val Ile Lys Met Ala Leu Ala Ala Arg Leu Leu Pro Gln Phe Leu His

1	5	10	15
Ser Arg Ser Leu Pro Cys Gly Ala Val Arg Leu Arg Thr Pro Ala Val			
20	25	30	
Ala Glu Val Arg Leu Pro Ser Ala Thr Leu Cys Tyr Phe Cys Arg Cys			
35	40	45	
Arg Leu Gly Leu Gly Ala Ala Leu Phe Pro Arg Ser Ala Arg Ala Leu			
50	55	60	
Ala Ala Ser Ala Leu Pro Ala Gln Gly Ser Arg Trp Pro Val Leu Ser			
65	70	75	80
Ser Pro Gly Leu Pro Ala Ala Phe Ala Ser Phe Pro Ala Cys Pro Gln			
85	90	95	
Arg Ser Tyr Ser Thr Glu Glu Lys Pro Gln Gln His Gln Lys Thr Lys			
100	105	110	
Met Ile Val Leu Gly Phe Ser Asn Pro Ile Asn Trp Val Arg Thr Arg			
115	120	125	
Ile Lys Ala Phe Leu Ile Trp Ala Tyr Phe Asp Lys Glu Phe Ser Ile			
130	135	140	
Thr Glu Phe Ser Glu Gly Ala Lys Gln Ala Phe Ala His Val Ser Lys			
145	150	155	160
Leu Leu Ser Gln Cys Lys Phe Asp Leu Leu Glu Glu Leu Val Ala Lys			
165	170	175	
Glu Val Leu His Ala Leu Lys Glu Lys Val Thr Ser Leu Pro Asp Asn			
180	185	190	
His Lys Asn Ala Leu Ala Ala Asn Ile Asp Glu Ile Val Phe Thr Ser			
195	200	205	
Thr Gly Asp Ile Ser Ile Tyr Tyr Asp Glu Lys Gly Arg Lys Phe Val			
210	215	220	
Asn Ile Leu Met Cys Phe Trp Tyr Leu Thr Ser Ala Asn Ile Pro Ser			
225	230	235	240
Glu Thr Leu Arg Gly Ala Ser Val Phe Gln Val Lys Leu Gly Asn Gln			
245	250	255	
Asn Val Glu Thr Lys Gln Leu Leu Ser Ala Ser Tyr Glu Phe Gln Arg			
260	265	270	
Glu Phe Thr Gln Gly Val Lys Pro Asp Trp Thr Ile Ala Arg Ile Glu			
275	280	285	
His Ser Lys Leu Leu Glu			
290	294		

<210> 3621

<211> 1106

<212> PRT

<213> Homo sapiens

<400> 3621

Ser Ser Ser Arg Ser Arg His Ser Ser Ile Ser Pro Val Arg Leu Pro			
1	5	10	15
Leu Asn Ser Ser Leu Gly Ala Glu Leu Ser Arg Lys Lys Lys Glu Arg			
20	25	30	
Ala Ala Ala Ala Ala Ala Ala Lys Met Asp Gly Lys Glu Ser Ser Tyr			
35	40	45	
Glu Arg Ser Gly Ser Tyr Ser Gly Arg Ser Pro Ser Pro Tyr Gly Arg			
50	55	60	
Arg Arg Ser Ser Ser Pro Phe Leu Ser Lys Arg Ser Leu Ser Arg Ser			
65	70	75	80
Pro Leu Pro Ser Arg Lys Ser Met Lys Ser Arg Ser Arg Ser Pro Ala			
85	90	95	
Tyr Ser Arg His Ser Ser Ser His Ser Lys Lys Lys Arg Ser Ser Ser			
100	105	110	
Arg Ser Arg His Ser Ser Ile Ser Pro Val Arg Leu Pro Leu Asn Ser			
115	120	125	
Ser Leu Gly Ala Glu Leu Ser Arg Lys Lys Lys Glu Arg Ala Ala Ala			

130	135	140
Ala Ala Ala Ala Lys Met	Asp Gly Lys Glu Ser	Ser Tyr Glu Arg Ser
145	150	155
Gly Ser Tyr Ser Gly Arg	Ser Pro Ser Pro Tyr	Gly Arg Arg Arg Ser
165	170	175
Ser Ser Pro Phe Leu Ser	Lys Arg Ser Leu Ser	Arg Ser Pro Leu Pro
180	185	190
Ser Arg Lys Ser Met Lys	Ser Arg Ser Pro Ala	Tyr Ser Arg
195	200	205
His Ser Ser Ser His Ser	Lys Lys Lys Arg Ser	Ser Ser Arg Ser Arg
210	215	220
His Ser Ser Ile Ser Pro	Val Arg Leu Pro Leu	Asn Ser Ser Leu Gly
225	230	235
Ala Glu Leu Ser Arg Lys	Lys Lys Glu Arg Ala	Ala Ala Ala Ala Ala
245	250	255
Ala Lys Met Asp Gly Lys	Glu Ser Lys Gly Ser	Pro Val Phe Leu Pro
260	265	270
Arg Lys Glu Asn Ser Ser	Val Glu Ala Lys Asp	Ser Gly Leu Glu Ser
275	280	285
Lys Lys Leu Pro Arg Ser	Val Lys Leu Glu Lys	Ser Ala Pro Asp Thr
290	295	300
Glu Leu Val Asn Val Thr	His Leu Asn Thr Glu	Val Lys Asn Ser Ser
305	310	315
Asp Thr Gly Lys Val Lys	Leu Asp Glu Asn Ser	Glu Lys His Leu Val
325	330	335
Lys Asp Leu Lys Ala Gln	Gly Thr Arg Asp Ser	Lys Pro Ile Ala Leu
340	345	350
Lys Glu Glu Ile Val Thr	Pro Lys Glu Thr Glu	Thr Ser Glu Lys Glu
355	360	365
Thr Pro Pro Pro Leu Pro	Thr Ile Ala Ser Pro	Pro Pro Pro Leu Pro
370	375	380
Thr Thr Thr Pro Pro Pro	Gln Thr Pro Pro Leu	Pro Pro Leu Pro Pro
385	390	395
Ile Pro Ala Leu Pro Gln	Gln Pro Pro Leu Pro	Pro Ser Gln Pro Ala
405	410	415
Phe Ser Gln Val Pro Ala	Ser Ser Thr Ser Thr	Leu Pro Pro Ser Thr
420	425	430
His Ser Lys Thr Ser Ala	Val Ser Ser Gln Ala	Asn Ser Gln Pro Pro
435	440	445
Val Gln Val Ser Val Lys	Thr Gln Val Ser Val	Thr Ala Ala Ile Pro
450	455	460
His Leu Lys Thr Ser Thr	Leu Pro Pro Leu Pro	Leu Pro Pro Leu Leu
465	470	475
Pro Gly Asp Asp Asp Met	Asp Ser Pro Lys Glu	Thr Leu Pro Ser Lys
485	490	495
Pro Val Lys Lys Glu Lys	Glu Gln Arg Thr Arg	His Leu Leu Thr Asp
500	505	510
Leu Pro Leu Pro Pro Glu	Leu Pro Gly Gly Asp	Leu Ser Pro Pro Asp
515	520	525
Ser Pro Glu Pro Lys Ala	Ile Thr Pro Pro Gln	Gln Pro Tyr Lys Lys
530	535	540
Arg Pro Lys Ile Cys Cys	Pro Arg Tyr Gly Glu	Arg Arg Gln Thr Glu
545	550	555
Ser Asp Trp Gly Lys Arg	Cys Val Asp Lys Phe	Asp Ile Ile Gly Ile
565	570	575
Ile Gly Glu Gly Thr Tyr	Gly Gln Val Tyr Lys	Ala Lys Asp Lys Asp
580	585	590
Thr Gly Glu Leu Val Ala	Leu Lys Lys Val Arg	Leu Asp Asn Glu Lys
595	600	605
Glu Gly Phe Pro Ile Thr	Ala Ile Arg Glu Ile	Lys Ile Leu Arg Gln
610	615	620
Leu Ile His Arg Ser Val	Val Asn Met Lys Glu	Ile Val Thr Asp Lys
625	630	635
Gln Asp Ala Leu Asp Phe	Lys Lys Asp Lys Gly	Ala Phe Tyr Leu Val

				645					650					655			
Phe	Glu	Tyr	Met	Asp	His	Asp	Leu	Met	Gly	Leu	Leu	Glu	Ser	Gly	Leu		
			660					665						670			
Val	His	Phe	Ser	Glu	Asp	His	Ile	Lys	Ser	Phe	Met	Lys	Gln	Leu	Met		
		675					680						685				
Glu	Gly	Leu	Glu	Tyr	Cys	His	Lys	Lys	Asn	Phe	Leu	His	Arg	Asp	Ile		
	690					695					700						
Lys	Cys	Ser	Asn	Ile	Leu	Leu	Asn	Asn	Ser	Gly	Gln	Ile	Lys	Leu	Ala		
705				710					715						720		
Asp	Phe	Gly	Leu	Ala	Arg	Leu	Tyr	Asn	Ser	Glu	Glu	Ser	Arg	Pro	Tyr		
			725					730						735			
Thr	Asn	Lys	Val	Ile	Thr	Leu	Trp	Tyr	Arg	Pro	Pro	Lys	Leu	Leu	Leu		
		740						745					750				
Gly	Glu	Glu	Arg	Tyr	Thr	Pro	Ala	Ile	Asp	Val	Trp	Ser	Cys	Gly	Cys		
	755					760						765					
Ile	Leu	Gly	Glu	Leu	Phe	Thr	Lys	Lys	Pro	Ile	Phe	Gln	Ala	Asn	Leu		
	770					775					780						
Glu	Leu	Ala	Gln	Leu	Glu	Leu	Ile	Ser	Arg	Leu	Cys	Gly	Ser	Pro	Cys		
785				790						795					800		
Pro	Ala	Val	Trp	Pro	Asp	Val	Ile	Lys	Leu	Pro	Tyr	Phe	Asn	Thr	Met		
			805					810						815			
Lys	Pro	Lys	Lys	Gln	Tyr	Arg	Arg	Arg	Leu	Arg	Glu	Glu	Phe	Ser	Phe		
		820					825						830				
Ile	Pro	Ser	Ala	Ala	Leu	Asp	Leu	Leu	Asp	His	Met	Leu	Thr	Leu	Asp		
	835					840						845					
Pro	Ser	Lys	Arg	Cys	Thr	Ala	Glu	Gln	Thr	Leu	Gln	Ser	Asp	Phe	Leu		
	850				855						860						
Lys	Asp	Val	Glu	Leu	Ser	Lys	Met	Ala	Pro	Pro	Asp	Leu	Pro	His	Trp		
865				870						875					880		
Gln	Asp	Cys	His	Glu	Leu	Trp	Ser	Lys	Lys	Arg	Arg	Arg	Gln	Arg	Gln		
		885						890						895			
Ser	Gly	Val	Val	Val	Glu	Glu	Pro	Pro	Pro	Ser	Lys	Thr	Ser	Arg	Lys		
		900						905					910				
Glu	Thr	Thr	Ser	Gly	Thr	Ser	Thr	Glu	Pro	Val	Lys	Asn	Ser	Ser	Pro		
	915						920					925					
Ala	Pro	Pro	Gln	Pro	Ala	Pro	Gly	Lys	Val	Glu	Ser	Gly	Ala	Gly	Asp		
	930					935						940					
Ala	Ile	Gly	Leu	Ala	Asp	Ile	Thr	Gln	Gln	Leu	Asn	Gln	Ser	Glu	Leu		
945				950						955					960		
Ala	Val	Leu	Leu	Asn	Leu	Leu	Gln	Ser	Gln	Thr	Asp	Leu	Ser	Ile	Pro		
		965						970						975			
Gln	Met	Ala	Gln	Leu	Leu	Asn	Ile	His	Ser	Asn	Pro	Glu	Met	Gln	Gln		
		980						985					990				
Gln	Leu	Glu	Ala	Leu	Asn	Gln	Ser	Ile	Ser	Ala	Leu	Thr	Glu	Ala	Thr		
	995					1000						1005					
Ser	Gln	Gln	Gln	Asp	Ser	Glu	Thr	Met	Ala	Pro	Glu	Glu	Ser	Leu	Lys		
	1010				1015					1020							
Glu	Ala	Pro	Ser	Ala	Pro	Val	Ile	Leu	Pro	Ser	Ala	Glu	Gln	Thr	Thr		
1025				1030						1035					1040		
Leu	Glu	Ala	Ser	Ser	Thr	Pro	Ala	Asp	Met	Gln	Asn	Ile	Leu	Ala	Val		
		1045						1050						1055			
Leu	Leu	Ser	Gln	Leu	Met	Lys	Thr	Gln	Glu	Pro	Ala	Gly	Ser	Leu	Glu		
	1060						1065					1070					
Glu	Asn	Asn	Ser	Asp	Lys	Asn	Ser	Gly	Pro	Gln	Gly	Pro	Arg	Arg	Thr		
	1075					1080					1085						
Pro	Thr	Met	Pro	Gln	Glu	Glu	Ala	Ala	Gly	Arg	Ser	Asn	Gly	Gly	Asn		
	1090				1095						1100						
Ala	Leu																
1105	1106																

<210> 3622

<211> 125

<212> PRT

<213> Homo sapiens

<400> 3622

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Thr Pro Glu Arg Gly Ser Ala Tyr Pro Glu Thr Ala Ala Val Arg Arg
 1          5          10          15
Pro Ala Gly Glu Cys Pro Ile Thr Met Ser Asp Leu Glu Ala Lys Leu
          20          25          30
Ser Thr Glu His Leu Gly Asp Lys Ile Lys Asp Glu Asp Ile Lys Leu
          35          40          45
Arg Val Ile Gly Gln Asp Ser Ser Glu Ile His Phe Lys Val Lys Met
          50          55          60
Thr Thr Pro Leu Lys Lys Leu Lys Lys Ser Tyr Cys Gln Arg Gln Gly
 65          70          75          80
Val Pro Val Asn Ser Leu Arg Phe Leu Phe Glu Gly Gln Arg Ile Ala
          85          90          95
Asp Asn His Thr Pro Glu Glu Leu Gly Met Glu Glu Glu Asp Val Ile
          100          105          110
Glu Val Tyr Gln Glu Gln Ile Gly Gly His Ser Thr Val
          115          120          125

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<210> 3623

<211> 514

<212> PRT

<213> Homo sapiens

<400> 3623

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Pro Pro Pro Ala Pro Gly Pro Asp Gly Leu Asn Glu Gly Cys Leu His
 1          5          10          15
Arg Leu Ser Met Pro His Gln Arg Pro Arg Thr Cys Ala Met Asn Pro
          20          25          30
Glu Leu Thr Met Glu Ser Leu Gly Thr Leu His Gly Ala Arg Gly Gly
          35          40          45
Gly Ser Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly
          50          55          60
Pro Gly His Glu Gln Glu Leu Leu Ala Ser Pro Ser Pro His His Ala
 65          70          75          80
Arg Arg Gly Pro Arg Gly Ser Leu Arg Gly Pro Pro Pro Pro Pro Thr
          85          90          95
Ala His Gln Glu Leu Gly Thr Ala Ala Ala Ala Ala Ala Ala Ala Ser
          100          105          110
Arg Ser Ala Met Val Thr Ser Met Ala Ser Ile Leu Asp Gly Gly Asp
          115          120          125
Tyr Arg Pro Glu Leu Ser Ile Pro Leu His His Ala Met Ser Met Ser
          130          135          140
Cys Asp Ser Ser Pro Pro Gly Met Gly Met Ser Asn Thr Tyr Thr Thr
          145          150          155          160
Leu Thr Pro Leu Gln Pro Leu Pro Pro Ile Ser Thr Val Ser Asp Lys
          165          170          175
Phe His His Pro His Pro His His His Pro His His His His His His
          180          185          190
His His Gln Arg Leu Ser Gly Asn Val Ser Gly Ser Phe Thr Leu Met
          195          200          205
Arg Asp Glu Arg Gly Leu Pro Ala Met Asn Asn Leu Tyr Ser Pro Tyr
          210          215          220
Lys Glu Met Pro Gly Met Ser Gln Ser Leu Ser Pro Leu Ala Ala Thr
          225          230          235          240
Pro Leu Gly Asn Gly Leu Gly Gly Leu His Asn Ala Gln Gln Ser Leu
          245          250          255
Pro Asn Tyr Gly Pro Pro Gly His Asp Lys Met Leu Ser Pro Asn Phe

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<210> 3624
<211> 708
<212> PRT
<213> Homo sapiens
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5396

									170							175
Arg	His	Glu	His	Pro	Pro	Asn	Pro	Pro	Val	Ser	Pro	Gly	Lys	Thr	Val	
			180						185				190			
Asn	Asp	Val	Asn	Ser	Asn	Asn	Asn	Met	Ser	Tyr	Arg	Asn	Ala	Gly	Thr	
		195					200					205				
Val	Arg	Gln	Met	Leu	Glu	Ser	Lys	Arg	Asn	Val	Ser	Glu	Ser	Ala	Pro	
	210					215					220					
Pro	Ser	Phe	Gln	Thr	Pro	Val	Asn	Thr	Val	Ser	Ser	Thr	Asn	Leu	Val	
225					230					235					240	
Thr	Pro	Pro	Ala	Val	Val	Ser	Ser	Gln	Pro	Lys	Leu	Gln	Thr	Pro	Val	
				245					250						255	
Thr	Ser	Gly	Ser	Leu	Thr	Ala	Thr	Ser	Val	Leu	Pro	Ala	Pro	Asn	Thr	
			260					265					270			
Ala	Thr	Val	Val	Ala	Thr	Thr	Gln	Val	Pro	Ser	Gly	Asn	Pro	Gln	Pro	
		275					280					285				
Thr	Ile	Ser	Leu	Gln	Pro	Leu	Pro	Val	Ile	Leu	His	Val	Pro	Val	Ala	
	290					295					300					
Val	Ser	Ser	Gln	Pro	Gln	Leu	Leu	Gln	Ser	His	Pro	Gly	Thr	Leu	Val	
305					310					315					320	
Thr	Asn	Gln	Pro	Ser	Gly	Asn	Val	Glu	Phe	Ile	Ser	Val	Gln	Ser	Pro	
				325					330						335	
Pro	Thr	Val	Ser	Gly	Leu	Thr	Lys	Asn	Pro	Val	Ser	Leu	Pro	Ser	Leu	
			340					345					350			
Pro	Asn	Pro	Thr	Lys	Pro	Asn	Asn	Val	Pro	Ser	Val	Pro	Ser	Pro	Ser	
		355					360					365				
Ile	Gln	Arg	Asn	Pro	Thr	Ala	Ser	Ala	Ala	Pro	Leu	Gly	Thr	Thr	Leu	
	370					375					380					
Ala	Val	Gln	Ala	Val	Pro	Thr	Ala	His	Ser	Ile	Val	Gln	Ala	Thr	Arg	
385					390					395					400	
Thr	Ser	Leu	Pro	Thr	Val	Gly	Pro	Ser	Gly	Leu	Tyr	Ser	Pro	Ser	Thr	
				405					410						415	
Asn	Arg	Gly	Pro	Ile	Gln	Met	Lys	Ile	Pro	Ile	Ser	Ala	Phe	Ser	Thr	
			420					425					430			
Ser	Ser	Ala	Ala	Glu	Gln	Asn	Ser	Asn	Thr	Thr	Pro	Arg	Ile	Glu	Asn	
		435					440					445				
Gln	Thr	Asn	Lys	Thr	Ile	Asp	Ala	Ser	Val	Ser	Lys	Lys	Ala	Ala	Asp	
	450					455					460					
Ser	Thr	Ser	Gln	Cys	Gly	Lys	Ala	Thr	Gly	Ser	Asp	Ser	Ser	Gly	Val	
465					470					475					480	
Ile	Asp	Leu	Thr	Met	Asp	Asp	Glu	Glu	Ser	Gly	Ala	Ser	Gln	Asp	Pro	
				485					490						495	
Lys	Lys	Leu	Asn	His	Thr	Pro	Val	Ser	Thr	Met	Ser	Ser	Ser	Gln	Pro	
			500					505					510			
Val	Ser	Arg	Pro	Leu	Gln	Pro	Ile	Gln	Pro	Ala	Pro	Pro	Leu	Gln	Pro	
		515					520					525				
Ser	Gly	Val	Pro	Thr	Ser	Gly	Pro	Ser	Gln	Thr	Thr	Ile	His	Leu	Leu	
	530					535					540					
Pro	Thr	Ala	Pro	Thr	Thr	Val	Asn	Val	Thr	His	Arg	Pro	Val	Thr	Gln	
545					550					555					560	
Val	Thr	Thr	Arg	Leu	Pro	Val	Pro	Arg	Ala	Pro	Ala	Asn	His	Gln	Val	
				565					570						575	
Val	Tyr	Thr	Thr	Leu	Pro	Ala	Pro	Pro	Ala	Gln	Ala	Pro	Leu	Arg	Gly	
			580					585					590			
Thr	Val	Met	Gln	Ala	Pro	Ala	Val	Arg	Gln	Val	Asn	Pro	Gln	Asn	Ser	
		595					600					605				
Val	Thr	Val	Arg	Val	Pro	Gln	Thr	Thr	Thr	Tyr	Val	Val	Asn	Asn	Gly	
	610					615					620					
Leu	Thr	Leu	Gly	Ser	Thr	Gly	Pro	Gln	Leu	Thr	Val	His	His	Arg	Pro	
625					630					635					640	
Pro	Gln	Val	His	Thr	Glu	Pro	Pro	Arg	Pro	Val	His	Pro	Ala	Pro	Leu	
				645					650						655	
Pro	Glu	Ala	Pro	Gln	Pro	Gln	Arg	Leu	Pro	Pro	Glu	Ala	Gly	Ser	Thr	
		660						665					670			
Ser	Arg	Pro	Ser	Glu	Ala	Thr	Leu	Glu	Val	Ser	His	Ala	Phe	Arg	Val	

	675		680		685
Lys	Met	Ala	Ile	Val	Leu
	690		695		700
Leu	Cys	His	Cys		
705			708		

<210> 3625
 <211> 301
 <212> PRT
 <213> Homo sapiens

<400> 3625

Ala	Ser	Pro	Phe	Leu	Arg	Pro	Gln	Gly	His	Asp	Ser	Gly	Glu	Arg	Glu
1				5					10					15	
Pro	Phe	Ser	Gln	Thr	Pro	Gly	Leu	Met	Gln	Pro	Phe	Ser	Ile	Pro	Val
			20					25					30		
Gln	Ile	Thr	Leu	Gln	Gly	Ser	Arg	Arg	Arg	Gln	Gly	Arg	Thr	Ala	Phe
		35					40					45			
Pro	Ala	Ser	Gly	Lys	Lys	Arg	Glu	Thr	Asp	Tyr	Ser	Asp	Gly	Asp	Pro
	50					55					60				
Leu	Asp	Val	His	Lys	Arg	Leu	Pro	Ser	Ser	Thr	Gly	Glu	Asp	Arg	Ala
65					70					75					80
Val	Met	Leu	Gly	Phe	Ala	Met	Met	Gly	Phe	Ser	Val	Leu	Met	Phe	Phe
			85						90					95	
Leu	Leu	Gly	Thr	Thr	Ile	Leu	Lys	Pro	Phe	Met	Leu	Ser	Ile	Gln	Arg
			100					105					110		
Glu	Glu	Ser	Thr	Cys	Thr	Ala	Ile	His	Thr	Asp	Ile	Met	Asp	Asp	Trp
		115					120					125			
Leu	Asp	Cys	Ala	Phe	Thr	Cys	Gly	Val	His	Cys	His	Gly	Gln	Gly	Lys
	130					135					140				
Tyr	Pro	Cys	Leu	Gln	Val	Phe	Val	Asn	Leu	Ser	His	Pro	Gly	Gln	Lys
145					150					155					160
Ala	Leu	Leu	His	Tyr	Asn	Glu	Glu	Ala	Val	Gln	Ile	Asn	Pro	Lys	Cys
			165						170					175	
Phe	Tyr	Thr	Pro	Lys	Cys	His	Gln	Asp	Arg	Asn	Asp	Leu	Leu	Asn	Ser
			180					185					190		
Ala	Leu	Asp	Ile	Lys	Glu	Phe	Phe	Asp	His	Lys	Asn	Gly	Thr	Pro	Phe
		195					200					205			
Ser	Cys	Phe	Tyr	Ser	Pro	Ala	Ser	Gln	Ser	Glu	Asp	Val	Ile	Leu	Ile
	210					215					220				
Lys	Lys	Tyr	Asp	Gln	Met	Ala	Ile	Phe	His	Cys	Leu	Phe	Trp	Pro	Ser
225					230					235					240
Leu	Thr	Leu	Leu	Gly	Gly	Ala	Leu	Ile	Val	Gly	Met	Val	Arg	Leu	Thr
			245						250					255	
Gln	His	Leu	Ser	Leu	Leu	Cys	Glu	Lys	Tyr	Ser	Thr	Val	Val	Arg	Asp
			260					265					270		
Glu	Val	Gly	Gly	Lys	Val	Pro	Tyr	Ile	Glu	Gln	His	Gln	Phe	Lys	Leu
		275					280					285			
Cys	Ile	Met	Arg	Arg	Ser	Lys	Gly	Arg	Ala	Glu	Lys	Ser			
	290					295					300	301			

<210> 3626
 <211> 303
 <212> PRT
 <213> Homo sapiens

<400> 3626

Ser	Ser	Val	Val	Glu	Phe	Ser	Ala	Leu	Ser	Val	Ser	Met	Ala	Cys	Leu
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

1	5	10	15
Ser Pro Ser Gln Leu Gln Lys Phe Gln Gln Asp Gly Phe Leu Val Leu			
20	25	30	
Glu Gly Phe Leu Ser Ala Glu Glu Cys Val Ala Met Gln Gln Arg Ile			
35	40	45	
Gly Glu Ile Val Ala Glu Met Asp Val Pro Leu His Cys Arg Thr Glu			
50	55	60	
Phe Ser Thr Gln Glu Glu Gln Leu Arg Ala Gln Gly Ser Thr Asp			
65	70	75	80
Tyr Phe Leu Ser Ser Gly Asp Lys Ile Arg Phe Phe Phe Glu Lys Gly			
85	90	95	
Val Phe Asp Glu Lys Gly Asn Phe Leu Val Pro Pro Glu Lys Ser Ile			
100	105	110	
Asn Lys Ile Gly His Ala Leu His Ala His Asp Pro Val Phe Lys Ser			
115	120	125	
Ile Thr His Ser Phe Lys Val Gln Thr Leu Ala Arg Ser Leu Gly Leu			
130	135	140	
Gln Met Pro Val Val Val Gln Ser Met Tyr Ile Phe Lys Gln Pro His			
145	150	155	160
Phe Gly Gly Glu Val Ser Pro His Gln Asp Ala Ser Phe Leu Tyr Thr			
165	170	175	
Glu Pro Leu Gly Arg Val Leu Gly Val Trp Ile Ala Val Glu Asp Ala			
180	185	190	
Thr Leu Glu Asn Gly Cys Leu Trp Phe Ile Pro Gly Ser His Thr Ser			
195	200	205	
Gly Val Ser Arg Arg Met Val Arg Ala Pro Val Gly Ser Ala Pro Gly			
210	215	220	
Thr Ser Phe Leu Gly Ser Glu Pro Ala Arg Asp Asn Ser Leu Phe Val			
225	230	235	240
Pro Thr Pro Val Gln Arg Gly Ala Leu Val Leu Ile His Gly Glu Val			
245	250	255	
Val His Lys Ser Lys Gln Asn Leu Ser Asp Arg Ser Arg Gln Ala Tyr			
260	265	270	
Thr Phe His Leu Met Glu Ala Ser Gly Thr Thr Trp Ser Pro Glu Asn			
275	280	285	
Trp Leu Gln Pro Thr Ala Glu Leu Pro Phe Pro Gln Leu Tyr Thr			
290	295	300	303

<210> 3627

<211> 137

<212> PRT

<213> Homo sapiens

<400> 3627

Ile Asn Ser Ser Pro Arg Thr Gly Arg Asp His Gln Glu Leu Asn Leu			
1	5	10	15
His Thr Glu Arg Asp Ser Arg Ser Gln Arg Ala Val Leu Lys Ile Pro			
20	25	30	
Arg Gln Asn Pro Gly Ile Phe Tyr Trp Ile Phe Leu Pro Ser Arg Ser			
35	40	45	
His Ser Ala Ser His Gly Ser Arg Gln Arg Gln Val Ser Cys Gln Gly			
50	55	60	
Thr Gln Asp Glu Ile Leu Lys Met Arg Asn Thr Phe Ala Glu Leu Lys			
65	70	75	80
Asn Ser Leu Glu Ala Leu Ser Ser Arg Met Asp Gln Ala Glu Glu Arg			
85	90	95	
Ile Gly Thr Gln Ala Gly Val Gln Trp Arg Asp His Gly Ser Leu Gln			
100	105	110	
Pro Gln Pro Pro Glu Phe Lys Gln Cys Phe His Leu Ser Leu Pro Ser			
115	120	125	
Ser Trp Asp Tyr Arg Ala Cys Leu Ser			

130

135

137

<210> 3628
 <211> 269
 <212> PRT
 <213> Homo sapiens

<400> 3628
 Gly Cys Lys His Leu Leu Gln Asn Ser Trp Tyr Asp Pro Arg Val Arg
 1 5 10 15
 Glu Ala Asp Arg Val Gly Gln Arg Ala Arg Arg Pro Arg Ala Ala Met
 20 25 30
 Asp Trp Leu Met Gly Lys Ser Lys Ala Lys Pro Asn Gly Lys Lys Pro
 35 40 45
 Ala Ala Glu Glu Arg Lys Ala Tyr Leu Glu Pro Glu His Thr Lys Ala
 50 55 60
 Arg Ile Thr Asp Phe Gln Phe Lys Glu Leu Val Val Leu Pro Arg Glu
 65 70 75 80
 Ile Asp Leu Asn Glu Trp Leu Ala Ser Asn Thr Thr Thr Phe Phe His
 85 90 95
 His Ile Asn Leu Gln Tyr Ser Thr Ile Ser Glu Phe Cys Thr Gly Glu
 100 105 110
 Thr Cys Gln Thr Met Ala Val Cys Asn Thr Gln Tyr Tyr Trp Tyr Asp
 115 120 125
 Glu Arg Gly Lys Lys Val Lys Cys Thr Ala Pro Gln Tyr Val Asp Phe
 130 135 140
 Val Met Ser Ser Val Gln Lys Leu Val Thr Asp Glu Asp Val Phe Pro
 145 150 155 160
 Thr Lys Tyr Gly Arg Glu Phe Pro Ser Ser Phe Glu Ser Leu Val Arg
 165 170 175
 Lys Ile Cys Arg His Leu Phe His Val Leu Ala His Ile Tyr Trp Ala
 180 185 190
 His Phe Lys Glu Thr Leu Ala Leu Glu Leu His Gly His Leu Asn Thr
 195 200 205
 Leu Tyr Val His Phe Ile Leu Phe Ala Arg Glu Phe Asn Leu Leu Asp
 210 215 220
 Pro Lys Glu Thr Ala Ile Met Asp Asp Leu Thr Glu Val Leu Cys Ser
 225 230 235 240
 Gly Gly Arg Arg Gly Ser Thr Val Gly Ala Val Gly Met Gly Pro Ala
 245 250 255
 Ala Gly Ala Pro Gly Ala Gln Asn His Val Lys Glu Arg
 260 265 269

<210> 3629
 <211> 301
 <212> PRT
 <213> Homo sapiens

<400> 3629
 Cys Ser His Gly Ser Ser Ala Val Ser Ala Trp Ser Pro Leu Phe Gln
 1 5 10 15
 Ala Ser Glu Val Glu Arg Gln Leu Ser Met Gln Val His Ala Leu Arg
 20 25 30
 Glu Asp Phe Arg Glu Lys Asn Ser Ser Thr Asn Gln His Ile Ile Arg
 35 40 45
 Leu Glu Ser Leu Gln Ala Glu Ile Lys Met Leu Ser Asp Arg Lys Arg
 50 55 60
 Glu Leu Glu His Arg Leu Ser Ala Thr Leu Glu Glu Asn Asp Leu Leu

65		70		75		80
Gln Gly Thr Val	Glu Glu Leu Gln Asp Arg	Val Leu Ile Leu Glu Arg				
	85		90			95
Gln Gly His Asp	Lys Asp Leu Gln Leu His Gln Ser Gln	Leu Glu Leu				
	100		105			110
Gln Glu Val Arg	Leu Ser Cys Arg Gln Leu Gln Val Lys	Val Glu Glu				
	115		120			125
Leu Thr Glu Glu Arg	Ser Leu Gln Ser Ser Ala Ala Thr Ser Thr Ser					
	130		135			140
Leu Leu Ser Glu Ile	Glu Gln Ser Met Glu Ala Glu Glu Leu Glu Gln					
	145		150			155
Glu Arg Glu Gln Leu Thr	Leu Leu Ser Val Glu Met Thr Ala Leu Lys					
	165		170			175
Glu Glu Arg Asp Arg	Leu Arg Val Thr Ser Glu Asp Lys Glu Pro Lys					
	180		185			190
Glu Gln Leu Gln Lys	Ala Ile Arg Asp Arg Asp Glu Ala Ile Ala Lys					
	195		200			205
Lys Asn Ala Val Glu	Leu Glu Leu Ala Lys Cys Arg Met Asp Met Met					
	210		215			220
Ser Leu Asn Ser Gln	Leu Leu Asp Ala Ile Gln Gln Lys Leu Asn Leu					
	225		230			235
Ser Gln Gln Leu Glu	Ala Trp Gln Asp Asp Met His Arg Val Ile Asp					
	245		250			255
Arg Gln Leu Met Asp	Thr His Leu Lys Glu Arg Ser Gln Pro Ala Ala					
	260		265			270
Ala Leu Cys Arg Gly	His Ser Ala Gly Arg Gly Asp Glu Pro Ser Ile					
	275		280			285
Ala Glu Gly Lys Arg	Leu Phe Ser Phe Phe Arg Lys Ile					
	290		295			300 301

<210> 3630
 <211> 141
 <212> PRT
 <213> Homo sapiens

<400> 3630

Pro Ala Lys Val	Leu Thr Leu Asp Ile Tyr Leu Ser Lys Thr Glu Gly
1	5 10 15
Ala Gln Val Asp	Glu Pro Val Val Ile Thr Pro Arg Ala Glu Asp Cys
	20 25 30
Gly Asp Trp Asp	Asp Met Glu Lys Arg Ser Ser Gly Arg Arg Ser Gly
	35 40 45
Arg Arg Arg Gly	Ser Gln Lys Ser Thr Asp Ser Pro Gly Ala Asp Ala
	50 55 60
Glu Leu Pro Glu	Ser Ala Ala Arg Asp Asp Ala Val Phe Asp Asp Glu
65	70 75 80
Val Ala Pro Asn	Ala Ala Ser Asp Asn Ala Ser Ala Glu Lys Lys Val
	85 90 95
Lys Ser Pro Arg	Ala Ala Leu Asp Gly Gly Val Ala Ser Ala Ala Ser
	100 105 110
Pro Glu Ser Lys	Pro Ser Pro Gly Thr Lys Gly Gln Leu Arg Gly Glu
	115 120 125
Ser Asp Arg Ser	Lys Gln Pro Pro Pro Ala Ser Ser Pro
	130 135 140 141

<210> 3631
 <211> 469
 <212> PRT
 <213> Homo sapiens

<400> 3631

Trp	Ser	Gly	Phe	Trp	Gln	Leu	Pro	Gly	Val	Arg	Gly	Val	Gly	Ser	Ala
1				5				10						15	
Pro	Gly	Gly	Asp	Gly	Ala	Glu	Phe	Thr	Ser	Arg	Arg	Gly	Ser	Ser	Arg
			20					25					30		
Arg	Pro	Gly	Ala	Ala	Cys	Pro	Gly	Cys	Arg	Gly	Ala	Gly	Ser	Glu	Arg
		35					40					45			
Ala	Pro	Gly	Gly	Met	Gly	Arg	Arg	Arg	Ala	Pro	Glu	Leu	Tyr	Arg	Ala
	50					55					60				
Pro	Phe	Pro	Leu	Tyr	Ala	Leu	Gln	Val	Asp	Pro	Ser	Thr	Gly	Leu	Leu
65					70					75				80	
Ile	Ala	Ala	Gly	Gly	Gly	Gly	Ala	Ala	Lys	Thr	Gly	Ile	Lys	Asn	Gly
			85						90					95	
Val	His	Phe	Leu	Gln	Leu	Glu	Leu	Ile	Asn	Gly	Arg	Leu	Ser	Ala	Ser
			100					105					110		
Leu	Leu	His	Ser	His	Asp	Thr	Glu	Thr	Arg	Ala	Thr	Met	Asn	Leu	Ala
		115					120					125			
Leu	Ala	Gly	Asp	Ile	Leu	Ala	Gly	Gln	Asp	Ala	His	Cys	Gln	Leu	
	130					135				140					
Leu	Arg	Phe	Gln	Ala	His	Gln	Gln	Gln	Gly	Asn	Lys	Ala	Glu	Lys	Ala
145					150					155				160	
Gly	Ser	Lys	Glu	Gln	Gly	Pro	Arg	Gln	Arg	Lys	Gly	Ala	Ala	Pro	Ala
			165						170					175	
Glu	Lys	Lys	Cys	Gly	Ala	Glu	Thr	Gln	His	Glu	Gly	Leu	Glu	Leu	Arg
			180					185					190		
Val	Glu	Asn	Leu	Gln	Ala	Val	Gln	Thr	Asp	Phe	Ser	Ser	Asp	Pro	Leu
		195					200					205			
Gln	Lys	Val	Val	Cys	Phe	Asn	His	Asp	Asn	Thr	Leu	Leu	Ala	Thr	Gly
	210					215					220				
Gly	Thr	Asp	Gly	Tyr	Val	Arg	Val	Trp	Lys	Val	Pro	Ser	Leu	Glu	Lys
225					230					235				240	
Val	Leu	Glu	Phe	Lys	Ala	His	Glu	Gly	Glu	Ile	Glu	Asp	Leu	Ala	Leu
			245						250					255	
Gly	Pro	Asp	Gly	Lys	Leu	Val	Thr	Val	Gly	Arg	Asp	Leu	Lys	Ala	Ser
			260					265					270		
Val	Trp	Gln	Lys	Asp	Gln	Leu	Val	Thr	Gln	Leu	His	Trp	Gln	Glu	Asn
		275					280					285			
Gly	Pro	Thr	Phe	Ser	Ser	Thr	Pro	Tyr	Arg	Tyr	Gln	Ala	Cys	Arg	Phe
	290					295					300				
Gly	Gln	Val	Pro	Asp	Gln	Pro	Ala	Gly	Leu	Arg	Leu	Phe	Thr	Val	Gln
305					310					315				320	
Ile	Pro	His	Lys	Arg	Leu	Arg	Gln	Pro	Pro	Pro	Cys	Tyr	Leu	Thr	Ala
			325						330					335	
Trp	Asp	Gly	Ser	Asn	Phe	Leu	Pro	Leu	Arg	Thr	Lys	Ser	Cys	Gly	His
			340					345					350		
Glu	Val	Val	Ser	Cys	Leu	Asp	Val	Ser	Glu	Ser	Gly	Thr	Phe	Leu	Gly
		355					360					365			
Leu	Gly	Thr	Val	Thr	Gly	Ser	Val	Ala	Ile	Tyr	Ile	Ala	Phe	Ser	Leu
	370					375					380				
Gln	Cys	Leu	Tyr	Tyr	Val	Arg	Glu	Ala	His	Gly	Ile	Val	Val	Thr	Asp
385					390					395				400	
Val	Ala	Phe	Leu	Pro	Glu	Lys	Gly	Arg	Gly	Pro	Glu	Leu	Leu	Gly	Ser
			405						410					415	
His	Glu	Thr	Ala	Leu	Phe	Ser	Val	Ala	Val	Asp	Ser	Arg	Cys	Gln	Leu
			420					425					430		
His	Leu	Leu	Pro	Ser	Arg	Arg	Ser	Val	Pro	Val	Trp	Leu	Leu	Leu	Leu
		435					440					445			
Leu	Cys	Val	Gly	Leu	Ile	Ile	Val	Thr	Ile	Leu	Leu	Leu	Gln	Ser	Ala
	450					455					460				
Phe	Pro	Gly	Phe	Leu											
465				469											

<210> 3632
 <211> 301
 <212> PRT
 <213> Homo sapiens

<400> 3632
 Pro Trp Cys Gln Arg Val Glu Val Arg Ser Cys Gly Ser Ser Lys Arg
 1 5 10 15
 Ser Cys Ser Arg Trp Ser Gly Ser Ser Trp Asp Gly Ser Arg Ser Leu
 20 25 30
 Gly Arg Gly Leu Asn His Thr Ser Leu Asn Arg Ser Pro Pro Phe Thr
 35 40 45
 Pro Asp Thr Met Thr His Cys Cys Ser Pro Cys Cys Gln Pro Thr Cys
 50 55 60
 Cys Arg Thr Thr Cys Cys Arg Thr Thr Cys Trp Lys Pro Thr Thr Val
 65 70 75 80
 Thr Thr Cys Ser Ser Thr Pro Cys Cys Gln Pro Ser Cys Cys Val Pro
 85 90 95
 Ser Cys Cys Gln Pro Cys Cys His Pro Thr Cys Cys Gln Asn Thr Cys
 100 105 110
 Cys Arg Thr Thr Cys Cys Gln Pro Thr Cys Val Ala Ser Cys Cys Gln
 115 120 125
 Pro Ser Cys Cys Ser Thr Pro Cys Cys Gln Pro Thr Cys Cys Gly Ser
 130 135 140
 Ser Cys Cys Gly Gln Thr Ser Cys Gly Ser Ser Cys Cys Gln Pro Ile
 145 150 155 160
 Cys Gly Ser Ser Cys Cys Gln Pro Cys Cys His Pro Thr Cys Tyr Gln
 165 170 175
 Thr Ile Cys Phe Arg Thr Thr Cys Cys Gln Pro Thr Cys Cys Gln Pro
 180 185 190
 Thr Cys Cys Arg Asn Thr Ser Cys Gln Pro Thr Cys Cys Gly Ser Ser
 195 200 205
 Cys Cys Gln Pro Cys Cys His Pro Thr Cys Cys Gln Thr Ile Cys Arg
 210 215 220
 Ser Thr Cys Cys Gln Pro Ser Cys Val Thr Arg Cys Cys Ser Thr Pro
 225 230 235 240
 Cys Cys Gln Pro Thr Cys Gly Gly Ser Ser Cys Cys Ser Gln Thr Cys
 245 250 255
 Asn Glu Ser Ser Tyr Cys Leu Pro Cys Cys Arg Pro Thr Cys Cys Gln
 260 265 270
 Thr Thr Cys Tyr Arg Thr Thr Cys Cys Arg Pro Ser Cys Cys Cys Ser
 275 280 285
 Pro Cys Cys Val Ser Ser Cys Cys Gln Pro Ser Cys Cys
 290 295 300 301

<210> 3633
 <211> 799
 <212> PRT
 <213> Homo sapiens

<400> 3633
 Gly Pro Glu Gly Tyr Arg Gly Arg Arg Ala Arg His Pro Ser Leu Gly
 1 5 10 15
 Ser Thr Thr Gly His Cys Gly Gly Gly Arg Gly Ala Glu Gly Thr Gly
 20 25 30
 Thr Asp Pro Ala Ala Pro Ala Ala Arg Leu Asn Val Asp Gly Leu Leu
 35 40 45
 Val Tyr Phe Pro Tyr Asp Tyr Ile Tyr Pro Glu Gln Phe Ser Tyr Met

50	55	60
Arg Glu Leu Lys Arg Thr Leu Asp Ala Lys Gly His Gly Val Leu Glu		
65	70	75
Met Pro Ser Gly Thr Gly Lys Thr Val Ser Leu Leu Ala Leu Ile Met		80
	85	90
Ala Tyr Gln Arg Ala Tyr Pro Leu Glu Val Thr Lys Leu Ile Tyr Cys		95
	100	105
Ser Arg Thr Val Pro Glu Ile Glu Lys Val Ile Glu Glu Leu Arg Lys		110
	115	120
Leu Leu Asn Phe Tyr Glu Lys Gln Glu Gly Glu Lys Leu Pro Phe Leu		125
	130	135
Gly Leu Ala Leu Ser Ser Arg Lys Asn Leu Cys Ile His Pro Glu Val		140
	145	150
Thr Pro Leu Arg Phe Gly Lys Asp Val Asp Gly Lys Cys His Ser Leu		155
	165	170
Thr Ala Ser Tyr Val Arg Ala Gln Tyr Gln His Asp Thr Ser Leu Pro		175
	180	185
His Cys Arg Phe Tyr Glu Glu Phe Asp Ala His Gly Arg Glu Val Pro		190
	195	200
Leu Pro Ala Gly Ile Tyr Asn Leu Asp Asp Leu Lys Ala Leu Gly Arg		205
	210	215
Arg Gln Gly Trp Cys Pro Tyr Phe Leu Ala Arg Tyr Ser Ile Leu His		220
	225	230
Ala Asn Val Val Val Tyr Ser Tyr His Tyr Leu Leu Asp Pro Lys Ile		235
	245	250
Ala Asp Leu Val Ser Lys Glu Leu Ala Arg Lys Ala Val Val Val Phe		255
	260	265
Asp Glu Ala His Asn Ile Asp Asn Val Cys Ile Asp Ser Met Ser Val		270
	275	280
Asn Leu Thr Arg Arg Thr Leu Asp Arg Cys Gln Gly Asn Leu Glu Thr		285
	290	295
Leu Gln Lys Thr Val Leu Arg Ile Lys Glu Thr Asp Glu Gln Arg Leu		300
	305	310
Arg Asp Glu Tyr Arg Arg Leu Val Glu Gly Leu Arg Glu Ala Ser Ala		315
	325	330
Ala Arg Glu Thr Asp Ala His Leu Ala Asn Pro Val Leu Pro Asp Glu		335
	340	345
Val Leu Gln Glu Ala Val Pro Gly Ser Ile Arg Thr Ala Glu His Phe		350
	355	360
Leu Gly Phe Leu Arg Arg Leu Leu Glu Tyr Val Lys Trp Arg Leu Arg		365
	370	375
Val Gln His Val Val Gln Glu Ser Pro Pro Ala Phe Leu Ser Gly Leu		380
	385	390
Ala Gln Arg Val Cys Ile Gln Arg Lys Pro Leu Arg Phe Cys Ala Glu		395
	405	410
Arg Leu Arg Ser Leu Leu His Thr Leu Glu Ile Thr Asp Leu Ala Asp		415
	420	425
Phe Ser Pro Leu Thr Leu Leu Ala Asn Phe Ala Thr Leu Val Ser Thr		430
	435	440
Tyr Ala Lys Gly Phe Thr Ile Ile Ile Glu Pro Phe Asp Asp Arg Thr		445
	450	455
Pro Thr Ile Ala Asn Pro Ile Leu His Phe Ser Cys Met Asp Ala Ser		460
	465	470
Leu Ala Ile Lys Pro Val Phe Glu Arg Phe Gln Ser Val Ile Ile Thr		475
	485	490
Ser Gly Thr Leu Ser Pro Leu Asp Ile Tyr Pro Lys Ile Leu Asp Phe		495
	500	505
His Pro Val Thr Met Ala Thr Phe Thr Met Thr Leu Ala Arg Val Cys		510
	515	520
Leu Cys Pro Met Ile Ile Gly Arg Gly Asn Asp Gln Val Ala Ile Ser		525
	530	535
Ser Lys Phe Glu Thr Arg Glu Asp Ile Ala Val Ile Arg Asn Tyr Gly		540
	545	550
Asn Leu Leu Leu Glu Met Ser Ala Val Val Pro Asp Gly Ile Val Ala		555
		560


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<210> 3634
<211> 74
<212> PRT
<213> Homo sapiens
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<210> 3635
<211> 134
<212> PRT
<213> Homo sapiens
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      <400> 3635
Thr Glu Leu Ser Gln Leu Glu Lys Ala His Pro Pro Ala Asp Met Gly
 1          5          10          15
Arg Arg Lys Ser Lys Arg Lys Pro Pro Pro Lys Lys Lys Met Thr Gly
          20          25          30
Thr Leu Glu Thr Gln Phe Thr Cys Pro Phe Cys Asn His Glu Lys Ser

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<210> 3636
<211> 77
<212> PRT
<213> Homo sapiens
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<210> 3637
<211> 416
<212> PRT
<213> Homo sapiens
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5406

				165					170					175		
Tyr	Leu	Leu	Asn	Thr	Ile	Ala	Asp	Ile	Leu	Gln	Glu	Glu	Arg	Lys	Gln	
			180					185					190			
Glu	Lys	Gln	Asn	Gly	Arg	Leu	Pro	Asn	Gly	Asn	Ile	Asp	Asn	Glu	Asn	
		195					200					205				
Asn	Asn	Ser	Thr	Pro	Asp	Pro	Thr	Trp	Val	His	Glu	Ile	Phe	Gln	Gly	
	210					215					220					
Thr	Leu	Thr	Asn	Glu	Thr	Arg	Cys	Leu	Thr	Cys	Glu	Thr	Ile	Ser	Ser	
225					230					235					240	
Lys	Asp	Glu	Asp	Phe	Leu	Asp	Leu	Ser	Val	Asp	Val	Glu	Gln	Asn	Thr	
			245						250					255		
Ser	Ile	Thr	His	Cys	Leu	Arg	Gly	Phe	Ser	Asn	Thr	Glu	Thr	Leu	Cys	
			260					265						270		
Ser	Glu	Tyr	Lys	Tyr	Tyr	Cys	Glu	Glu	Cys	Arg	Ser	Lys	Gln	Glu	Ala	
	275					280						285				
His	Lys	Arg	Met	Lys	Val	Lys	Lys	Leu	Pro	Met	Ile	Leu	Ala	Leu	His	
	290					295					300					
Leu	Lys	Arg	Phe	Lys	Tyr	Met	Asp	Gln	Leu	His	Arg	Tyr	Thr	Lys	Leu	
305					310					315					320	
Ser	Tyr	Arg	Val	Val	Phe	Pro	Leu	Glu	Leu	Arg	Leu	Phe	Asn	Thr	Ser	
			325						330						335	
Gly	Asp	Ala	Thr	Asn	Pro	Asp	Arg	Met	Tyr	Asp	Leu	Val	Ala	Val	Val	
			340					345					350			
Val	His	Cys	Gly	Ser	Gly	Pro	Asn	Arg	Gly	His	Tyr	Ile	Ala	Ile	Val	
	355					360						365				
Lys	Ser	His	Asp	Phe	Trp	Leu	Leu	Phe	Asp	Asp	Asp	Ile	Val	Glu	Lys	
	370					375				380						
Ile	Asp	Ala	Gln	Ala	Ile	Glu	Glu	Phe	Tyr	Gly	Leu	Thr	Ser	Asp	Ile	
385					390					395					400	
Ser	Lys	Asn	Ser	Glu	Ser	Gly	Tyr	Ile	Leu	Phe	Tyr	Gln	Ser	Arg	Asp	
			405						410					415	416	

<210> 3638
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 3638

Pro	Ala	Gly	Ile	Pro	Val	Ser	Thr	Ile	Ser	Ser	Asp	Arg	Arg	Ala	Ser	
1				5					10					15		
Thr	Asp	Leu	Thr	Arg	Lys	Met	Lys	Pro	Asp	Glu	Thr	Pro	Met	Phe	Asp	
		20						25				30				
Pro	Asn	Leu	Leu	Lys	Glu	Val	Asp	Trp	Ser	Gln	Asn	Thr	Ala	Thr	Phe	
	35					40						45				
Ser	Pro	Ala	Ile	Ser	Pro	Thr	His	Pro	Gly	Glu	Gly	Leu	Val	Leu	Arg	
	50					55					60					
Pro	Leu	Cys	Thr	Ala	Asp	Leu	Asn	Arg	Gly	Phe	Phe	Lys	Val	Leu	Gly	
	65				70					75					80	
Gln	Leu	Thr	Glu	Thr	Gly	Val	Val	Ser	Pro	Glu	Gln	Phe	Met	Lys	Ser	
			85						90					95		
Phe	Glu	His	Met	Lys	Lys	Ser	Gly	Asp	Tyr	Tyr	Val	Thr	Val	Val	Glu	
			100					105					110			
Asp	Val	Thr	Leu	Gly	Gln	Ile	Val	Ala	Thr	Ala	Thr	Leu	Ile	Ile	Glu	
	115					120						125				
His	Lys	Phe	Ile	His	Ser	Cys	Ala	Lys	Arg	Gly	Arg	Val	Glu	Asp	Val	
	130					135					140					
Val	Val	Ser	Asp	Glu	Cys	Arg	Gly	Lys	Gln	Leu	Gly	Asn	Leu	Leu	Leu	
	145				150					155					160	
Ser	Thr	Leu	Thr	Leu	Leu	Ser	Lys	Lys	Leu	Asn	Cys	Tyr	Lys	Ile	Thr	

				165					170					175		
Leu	Glu	Cys	Leu	Pro	Gln	Asn	Val	Gly	Phe	Tyr	Lys	Lys	Phe	Gly	Tyr	
			180					185					190			
Thr	Val	Ser	Glu	Glu	Asn	Tyr	Met	Cys	Arg	Arg	Phe	Leu	Lys			
		195					200					205	206			

<210> 3639
 <211> 399
 <212> PRT
 <213> Homo sapiens

<400> 3639

Pro	Arg	Val	Arg	Leu	Leu	Arg	Pro	Ser	Arg	Ser	Arg	Ser	Cys	Arg	Gly	
1				5					10					15		
Leu	Leu	Ser	Thr	Arg	Ala	Pro	Gly	Pro	Ser	Pro	Phe	Arg	Ser	Leu	His	
			20					25					30			
Ser	Ser	Pro	Leu	Leu	Pro	His	Ala	Met	Lys	Ser	Pro	Phe	Tyr	Arg	Cys	
		35					40					45				
Gln	Asn	Thr	Thr	Ser	Val	Glu	Lys	Gly	Asn	Ser	Ala	Val	Met	Gly	Gly	
	50					55					60					
Val	Leu	Phe	Ser	Thr	Gly	Leu	Leu	Gly	Asn	Leu	Leu	Ala	Leu	Gly	Leu	
65					70					75					80	
Leu	Ala	Arg	Ser	Gly	Leu	Gly	Trp	Cys	Ser	Arg	Arg	Pro	Leu	Arg	Pro	
				85				90					95			
Leu	Pro	Ser	Val	Phe	Tyr	Met	Leu	Val	Cys	Gly	Leu	Thr	Val	Thr	Asp	
			100					105					110			
Leu	Leu	Gly	Lys	Cys	Leu	Leu	Ser	Pro	Val	Val	Leu	Ala	Ala	Tyr	Ala	
		115					120					125				
Gln	Asn	Arg	Ser	Leu	Arg	Val	Leu	Ala	Pro	Ala	Leu	Asp	Asn	Ser	Leu	
	130					135					140					
Cys	Gln	Ala	Phe	Ala	Phe	Phe	Met	Ser	Phe	Phe	Gly	Leu	Ser	Ser	Thr	
145					150					155					160	
Leu	Gln	Leu	Leu	Ala	Met	Ala	Leu	Glu	Cys	Trp	Leu	Ser	Leu	Gly	His	
				165					170					175		
Pro	Phe	Phe	Tyr	Arg	Arg	His	Ile	Thr	Leu	Arg	Leu	Gly	Ala	Leu	Val	
			180					185					190			
Ala	Pro	Val	Val	Ser	Ala	Phe	Ser	Leu	Ala	Phe	Cys	Ala	Leu	Pro	Phe	
		195					200					205				
Met	Gly	Phe	Gly	Lys	Phe	Val	Gln	Tyr	Cys	Pro	Gly	Thr	Trp	Cys	Phe	
	210					215					220					
Ile	Gln	Met	Val	His	Glu	Glu	Gly	Ser	Leu	Ser	Val	Leu	Gly	Tyr	Ser	
225					230						235				240	
Val	Leu	Tyr	Ser	Ser	Leu	Met	Ala	Leu	Leu	Val	Leu	Ala	Thr	Val	Leu	
				245					250					255		
Cys	Asn	Leu	Gly	Ala	Met	Arg	Asn	Leu	Tyr	Ala	Met	His	Arg	Arg	Leu	
		260						265					270			
Gln	Arg	His	Pro	Arg	Ser	Cys	Thr	Arg	Asp	Cys	Ala	Glu	Pro	Arg	Ala	
		275					280					285				
Asp	Gly	Arg	Glu	Ala	Ser	Pro	Gln	Pro	Leu	Glu	Glu	Leu	Asp	His	Leu	
	290					295					300					
Leu	Leu	Leu	Ala	Leu	Met	Thr	Val	Leu	Phe	Thr	Met	Cys	Ser	Leu	Pro	
305					310					315					320	
Val	Ile	Tyr	Arg	Ala	Tyr	Tyr	Gly	Ala	Phe	Lys	Asp	Val	Lys	Glu	Lys	
				325					330					335		
Asn	Arg	Thr	Ser	Glu	Glu	Ala	Glu	Asp	Leu	Arg	Ala	Leu	Arg	Phe	Leu	
			340					345					350			
Ser	Val	Ile	Ser	Ile	Val	Asp	Pro	Trp	Ile	Phe	Ile	Ile	Phe	Arg	Ser	
		355					360					365				
Pro	Val	Phe	Arg	Ile	Phe	Phe	His	Lys	Ile	Phe	Ile	Arg	Pro	Leu	Arg	
	370					375					380					
Tyr	Arg	Ser	Arg	Cys	Ser	Asn	Ser	Thr	Asn	Met	Glu	Ser	Ser	Leu		

385

390

395

399

<210> 3640
 <211> 249
 <212> PRT
 <213> Homo sapiens

<400> 3640
 Pro Leu Pro Pro Pro Thr Leu Ala Met Phe Leu Thr Arg Ser Glu Tyr
 1 5 10 15
 Asp Arg Gly Val Asn Thr Phe Ser Pro Glu Gly Arg Leu Phe Gln Val
 20 25 30
 Glu Tyr Ala Ile Glu Ala Ile Lys Leu Gly Ser Thr Ala Ile Gly Ile
 35 40 45
 Gln Thr Ser Glu Gly Val Cys Leu Ala Val Glu Lys Arg Ile Thr Ser
 50 55 60
 Pro Leu Met Glu Pro Ser Ser Ile Glu Lys Ile Val Glu Ile Asp Ala
 65 70 75 80
 His Ile Gly Cys Ala Met Ser Gly Leu Ile Ala Asp Ala Lys Thr Leu
 85 90 95
 Ile Asp Lys Ala Arg Val Glu Thr Gln Asn His Trp Phe Thr Tyr Asn
 100 105 110
 Glu Thr Met Thr Val Glu Ser Val Thr Gln Ala Val Ser Asn Leu Ala
 115 120 125
 Leu Gln Phe Gly Glu Glu Asp Ala Asp Pro Gly Ala Met Ser Arg Pro
 130 135 140
 Phe Gly Val Ala Leu Leu Phe Gly Gly Val Asp Glu Lys Gly Pro Gln
 145 150 155 160
 Leu Phe His Met Asp Pro Ser Gly Thr Phe Val Gln Cys Asp Ala Arg
 165 170 175
 Ala Ile Gly Ser Ala Ser Glu Gly Ala Gln Ser Ser Leu Gln Glu Val
 180 185 190
 Tyr His Lys Ser Met Thr Leu Lys Glu Ala Ile Lys Ser Ser Leu Ile
 195 200 205
 Ile Leu Lys Gln Val Met Glu Glu Lys Leu Asn Ala Thr Asn Ile Glu
 210 215 220
 Leu Ala Thr Val Gln Pro Gly Gln Asn Phe His Met Phe Thr Lys Glu
 225 230 235 240
 Glu Leu Glu Glu Val Ile Lys Asp Ile
 245 249

<210> 3641
 <211> 417
 <212> PRT
 <213> Homo sapiens

<400> 3641
 Pro Thr Gly Gln Gly Gly Arg Arg Ala Glu Ala Arg Ser Cys Leu Leu
 1 5 10 15
 Ser Lys Ala Met Leu Gly Arg Ser Gly Tyr Arg Ala Leu Pro Leu Gly
 20 25 30
 Asp Phe Asp Arg Phe Gln Gln Ser Ser Phe Gly Phe Leu Gly Ser Gln
 35 40 45
 Lys Gly Cys Leu Ser Pro Glu Arg Gly Gly Val Gly Thr Gly Ala Asp
 50 55 60
 Val Pro Gln Ser Trp Pro Ser Cys Leu Cys His Gly Leu Ile Ser Phe
 65 70 75 80
 Leu Gly Phe Leu Leu Leu Leu Val Thr Phe Pro Ile Ser Gly Trp Phe

85 90 95
 Ala Leu Lys Ile Val Pro Thr Tyr Glu Arg Met Ile Val Phe Arg Leu
 100 105 110
 Gly Arg Ile Arg Thr Pro Gln Gly Pro Gly Met Val Leu Leu Pro
 115 120 125
 Phe Ile Asp Ser Phe Gln Arg Val Asp Leu Arg Thr Arg Ala Phe Asn
 130 135 140
 Val Pro Pro Cys Lys Leu Ala Ser Lys Asp Gly Ala Val Leu Ser Val
 145 150 155 160
 Gly Ala Asp Val Gln Phe Arg Ile Trp Asp Pro Val Leu Ser Val Met
 165 170 175
 Thr Val Lys Asp Leu Asn Thr Ala Thr Arg Met Thr Ala Gln Asn Ala
 180 185 190
 Met Thr Lys Ala Leu Leu Lys Arg Pro Leu Arg Glu Ile Gln Met Glu
 195 200 205
 Lys Leu Lys Ile Ser Asp Gln Leu Leu Leu Glu Ile Asn Asp Val Thr
 210 215 220
 Arg Ala Trp Gly Leu Glu Val Asp Arg Val Glu Leu Ala Val Glu Ala
 225 230 235 240
 Val Leu Gln Pro Pro Gln Asp Ser Pro Ala Gly Pro Asn Leu Asp Ser
 245 250 255
 Thr Leu Gln Gln Leu Ala Leu His Phe Leu Gly Gly Ser Met Asn Ser
 260 265 270
 Met Ala Gly Gly Ala Pro Ser Pro Gly Pro Ala Asp Thr Val Glu Met
 275 280 285
 Val Ser Glu Val Glu Pro Pro Ala Pro Gln Val Gly Ala Arg Ser Ser
 290 295 300
 Pro Lys Gln Pro Leu Ala Glu Gly Leu Leu Thr Ala Leu Gln Pro Phe
 305 310 315 320
 Leu Ser Glu Ala Leu Val Ser Gln Val Gly Ala Cys Tyr Gln Phe Asn
 325 330 335
 Val Val Leu Pro Ser Gly Thr Gln Ser Ala Tyr Phe Leu Asp Leu Thr
 340 345 350
 Thr Gly Arg Gly Arg Val Gly His Gly Val Pro Asp Gly Ile Pro Asp
 355 360 365
 Val Val Val Glu Met Ala Glu Ala Asp Leu Arg Ala Leu Leu Cys Arg
 370 375 380
 Glu Leu Arg Pro Leu Gly Ala Tyr Met Ser Gly Arg Leu Lys Val Lys
 385 390 395 400
 Gly Asp Leu Ala Met Ala Met Lys Leu Glu Ala Val Leu Arg Ala Leu
 405 410 415
 Lys
 417

<210> 3642

<211> 79

<212> PRT

<213> Homo sapiens

<400> 3642

Arg Arg Gly Glu Ile Asp Met Ala Thr Glu Gly Asp Val Glu Leu Glu
 1 5 10 15
 Leu Glu Thr Glu Thr Ser Gly Pro Glu Arg Pro Pro Glu Lys Pro Arg
 20 25 30
 Lys His Asp Ser Gly Ala Ala Asp Leu Glu Arg Val Thr Asp Tyr Ala
 35 40 45
 Glu Glu Lys Glu Ile Gln Ser Asn Leu Glu Thr Ala Met Ser Val
 50 55 60
 Ile Gly Asp Arg Arg Ser Arg Glu Gln Lys Ala Lys Gln Glu Arg
 65 70 75 79

<210> 3643
 <211> 149
 <212> PRT
 <213> Homo sapiens

<400> 3643
 Arg Lys Glu Arg Arg Arg Arg Arg Arg Arg Met Glu Ala Val Val Phe
 1 5 10 15
 Val Phe Ser Leu Leu Asp Cys Cys Ala Leu Ile Phe Leu Ser Val Tyr
 20 25 30
 Phe Ile Ile Thr Leu Ser Asp Leu Glu Cys Asp Tyr Ile Asn Ala Arg
 35 40 45
 Ser Cys Cys Ser Lys Leu Asn Lys Trp Val Ile Pro Glu Leu Ile Gly
 50 55 60
 His Thr Ile Val Thr Val Leu Leu Leu Met Ser Leu His Trp Phe Ile
 65 70 75 80
 Phe Leu Leu Asn Leu Pro Val Ala Thr Trp Asn Ile Tyr Arg Tyr Ile
 85 90 95
 Met Val Pro Ser Gly Asn Met Gly Val Phe Asp Pro Thr Glu Ile His
 100 105 110
 Asn Arg Gly Gln Leu Lys Ser His Met Lys Glu Ala Met Ile Lys Leu
 115 120 125
 Gly Phe His Leu Leu Cys Phe Phe Met Tyr Leu Tyr Ser Met Ile Leu
 130 135 140
 Ala Leu Ile Asn Asp
 145 149

<210> 3644
 <211> 904
 <212> PRT
 <213> Homo sapiens

<400> 3644
 Thr Ser Cys Arg His Phe Pro Ile Thr Ser Glu Asp Pro Leu Asn Tyr
 1 5 10 15
 Leu Leu Ile Leu Thr Val Glu Arg Ile Tyr Ala Tyr Gln Ala Leu Pro
 20 25 30
 Leu Gly Phe Leu Phe Cys Ser Arg Asp Pro Val Pro Glu Tyr Leu Asn
 35 40 45
 His Cys Gly Val Lys Tyr Val Leu Ile Ser Asp Arg Ala Ser Phe Cys
 50 55 60
 Ala Leu His Ile Phe Phe Ser Pro Phe Arg Asn Val Phe Arg Pro Ala
 65 70 75 80
 Ala Gly Gly Gly Ile Ala Pro Pro Pro Arg Leu Trp Phe Gln Pro Ser
 85 90 95
 Leu Ser Asp Ala Glu Met Glu Ile Pro Lys Leu Leu Pro Ala Arg Gly
 100 105 110
 Thr Leu Gln Gly Gly Gly Gly Gly Ile Pro Ala Gly Gly Gly Arg
 115 120 125
 Val His Arg Gly Pro Asp Ser Pro Ala Gly Gln Val Pro Thr Arg Arg
 130 135 140
 Leu Leu Leu Pro Arg Gly Pro Gln Asp Gly Gly Pro Gly Arg Arg Arg
 145 150 155 160
 Glu Glu Ala Ser Thr Ala Ser Arg Gly Pro Gly Pro Ser Leu Phe Ala
 165 170 175
 Pro Arg Pro His Gln Pro Ser Gly Gly Gly Gly Gly Gly Gly Asp Asp
 180 185 190
 Phe Phe Leu Val Leu Leu Asp Pro Val Gly Gly Asp Val Glu Thr Ala

195						200						205					
Gly	Ser	Gly	Gln	Ala	Ala	Gly	Pro	Val	Leu	Arg	Glu	Glu	Ala	Glu	Glu		
210						215					220						
Gly	Pro	Gly	Leu	Gln	Gly	Gly	Glu	Ser	Gly	Ala	Asn	Pro	Ala	Gly	Pro		
225					230					235					240		
Thr	Ala	Leu	Gly	Pro	Arg	Cys	Leu	Ser	Ala	Val	Pro	Thr	Pro	Ala	Pro		
				245					250					255			
Ile	Ser	Ala	Pro	Gly	Pro	Ala	Ala	Ala	Phe	Ala	Gly	Thr	Val	Thr	Ile		
			260					265					270				
His	Asn	Gln	Asp	Leu	Leu	Leu	Arg	Phe	Glu	Asn	Gly	Val	Leu	Thr	Leu		
		275					280					285					
Ala	Thr	Pro	Pro	Pro	His	Ala	Trp	Glu	Pro	Gly	Ala	Ala	Pro	Ala	Gln		
		290				295					300						
Gln	Pro	Gly	Cys	Leu	Ile	Ala	Pro	Gln	Ala	Gly	Phe	Pro	His	Ala	Ala		
305					310					315					320		
His	Pro	Gly	Asp	Cys	Pro	Glu	Leu	Pro	Pro	Asp	Leu	Leu	Leu	Ala	Glu		
			325						330					335			
Pro	Ala	Glu	Pro	Ala	Pro	Ala	Pro	Ala	Pro	Glu	Glu	Glu	Ala	Glu	Gly		
			340					345					350				
Pro	Ala	Ala	Ala	Leu	Gly	Pro	Arg	Gly	Pro	Leu	Gly	Ser	Gly	Pro	Gly		
		355				360					365						
Val	Val	Leu	Tyr	Leu	Cys	Pro	Glu	Ala	Leu	Cys	Gly	Gln	Thr	Phe	Ala		
		370				375					380						
Lys	Lys	His	Gln	Leu	Lys	Met	His	Leu	Leu	Thr	His	Ser	Ser	Ser	Gln		
385					390					395					400		
Gly	Gln	Arg	Pro	Phe	Lys	Cys	Pro	Leu	Gly	Gly	Cys	Gly	Trp	Thr	Phe		
				405					410					415			
Thr	Thr	Ser	Tyr	Lys	Leu	Lys	Arg	His	Leu	Gln	Ser	His	Asp	Lys	Leu		
			420					425					430				
Arg	Pro	Phe	Gly	Cys	Pro	Ala	Glu	Gly	Cys	Gly	Lys	Ser	Phe	Thr	Thr		
		435				440						445					
Val	Tyr	Asn	Leu	Lys	Ala	His	Met	Lys	Gly	His	Glu	Gln	Glu	Asn	Ser		
		450				455					460						
Phe	Lys	Cys	Glu	Val	Cys	Glu	Glu	Ser	Phe	Pro	Thr	Gln	Ala	Lys	Leu		
465					470					475					480		
Gly	Ala	His	Gln	Arg	Ser	His	Phe	Glu	Pro	Glu	Arg	Pro	Tyr	Gln	Cys		
				485					490					495			
Ala	Phe	Ser	Gly	Cys	Lys	Lys	Thr	Phe	Ile	Thr	Val	Ser	Ala	Leu	Phe		
			500					505					510				
Ser	His	Asn	Arg	Ala	His	Phe	Arg	Glu	Gln	Glu	Leu	Phe	Ser	Cys	Ser		
		515					520					525					
Phe	Pro	Gly	Cys	Ser	Lys	Gln	Tyr	Asp	Lys	Ala	Cys	Arg	Leu	Lys	Ile		
		530				535					540						
His	Leu	Arg	Ser	His	Thr	Gly	Glu	Arg	Pro	Phe	Leu	Cys	Asp	Phe	Asp		
545					550					555					560		
Gly	Cys	Gly	Trp	Asn	Phe	Thr	Ser	Met	Ser	Lys	Leu	Leu	Arg	His	Lys		
				565					570					575			
Arg	Lys	His	Asp	Asp	Asp	Arg	Arg	Phe	Met	Cys	Pro	Val	Glu	Gly	Cys		
			580					585					590				
Gly	Lys	Ser	Phe	Thr	Arg	Ala	Glu	His	Leu	Lys	Gly	His	Ser	Ile	Thr		
		595					600					605					
His	Leu	Ser	Thr	Lys	Pro	Phe	Val	Cys	Pro	Val	Ala	Gly	Cys	Cys	Ala		
		610				615					620						
Arg	Phe	Ser	Ala	Arg	Ser	Ser	Leu	Tyr	Ile	His	Ser	Lys	Lys	His	Leu		
625					630					635					640		
Gln	Asp	Val	Asp	Thr	Trp	Lys	Ser	Arg	Cys	Pro	Ile	Ser	Ser	Cys	Asn		
				645					650					655			
Lys	Leu	Phe	Thr	Ser	Lys	His	Ser	Met	Lys	Thr	His	Met	Val	Lys	Arg		
			660					665					670				
His	Lys	Val	Gly	Gln	Asp	Leu	Leu	Ala	Gln	Leu	Glu	Ala	Ala	Asn	Ser		
		675					680				685						
Leu	Thr	Pro	Ser	Ser	Glu	Leu	Thr	Ser	Gln	Arg	Gln	Asn	Asp	Leu	Ser		
		690				695					700						
Asp	Ala	Glu	Ile	Val	Ser	Leu	Phe	Ser	Asp	Val	Pro	Asp	Ser	Thr	Ser		

705		710		715		720									
Ala	Ala	Leu	Leu	Asp	Thr	Ala	Leu	Val	Asn	Ser	Gly	Ile	Leu	Thr	Ile
		725							730						735
Asp	Val	Ala	Ser	Val	Ser	Ser	Thr	Leu	Ala	Gly	His	Leu	Pro	Ala	Asn
		740							745						750
Asn	Asn	Asn	Ser	Val	Gly	Gln	Ala	Val	Asp	Pro	Pro	Ser	Leu	Met	Ala
		755							760						765
Thr	Ser	Asp	Pro	Pro	Gln	Ser	Leu	Asp	Thr	Ser	Leu	Phe	Phe	Gly	Thr
		770							775						780
Ala	Ala	Thr	Gly	Phe	Gln	Gln	Ser	Ser	Leu	Asn	Met	Asp	Glu	Val	Ser
785					790					795					800
Ser	Val	Ser	Val	Gly	Pro	Leu	Gly	Ser	Leu	Asp	Ser	Leu	Ala	Met	Lys
				805					810						815
Asn	Ser	Ser	Pro	Glu	Pro	Gln	Ala	Leu	Thr	Pro	Ser	Ser	Lys	Leu	Thr
			820						825						830
Val	Asp	Thr	Asp	Thr	Leu	Thr	Pro	Ser	Ser	Thr	Leu	Cys	Glu	Asn	Ser
			835						840						845
Val	Ser	Glu	Leu	Leu	Thr	Pro	Ala	Lys	Ala	Glu	Trp	Ser	Val	His	Pro
			850						855						860
Asn	Ser	Asp	Phe	Phe	Gly	Gln	Glu	Gly	Glu	Thr	Gln	Phe	Gly	Phe	Pro
865					870					875					880
Asn	Ala	Ala	Gly	Asn	His	Gly	Ser	Gln	Lys	Glu	Arg	Asn	Leu	Ile	Thr
				885					890						895
Val	Thr	Gly	Ser	Ser	Phe	Leu	Val								
			900						904						

<210> 3645
 <211> 162
 <212> PRT
 <213> Homo sapiens

<400> 3645

Thr	Val	Ser	Phe	His	Lys	Thr	Met	Ala	Ser	Leu	Lys	Cys	Ser	Thr	Val
1				5					10					15	
Val	Cys	Val	Ile	Cys	Leu	Glu	Lys	Pro	Lys	Tyr	Arg	Cys	Pro	Ala	Cys
			20					25					30		
Arg	Val	Pro	Tyr	Cys	Ser	Val	Val	Cys	Phe	Arg	Lys	His	Lys	Glu	Gln
			35				40					45			
Cys	Asn	Pro	Glu	Thr	Arg	Pro	Val	Glu	Lys	Lys	Ile	Arg	Ser	Ala	Leu
	50					55					60				
Pro	Thr	Lys	Thr	Val	Lys	Pro	Val	Glu	Asn	Lys	Asp	Asp	Asp	Asp	Ser
65					70					75					80
Ile	Ala	Asp	Phe	Leu	Asn	Ser	Asp	Glu	Glu	Glu	Asp	Arg	Val	Ser	Leu
				85					90					95	
Gln	Asn	Leu	Lys	Asn	Leu	Gly	Glu	Ser	Ala	Thr	Leu	Arg	Ser	Leu	Leu
			100					105					110		
Leu	Asn	Pro	His	Leu	Arg	Gln	Leu	Met	Val	Asn	Leu	Asp	Gln	Gly	Glu
		115					120					125			
Asp	Lys	Ala	Lys	Leu	Met	Arg	Ala	Tyr	Met	Gln	Glu	Pro	Leu	Phe	Val
	130					135					140				
Glu	Phe	Ala	Asp	Cys	Cys	Leu	Gly	Ile	Val	Glu	Pro	Ser	Gln	Asn	Glu
145					150					155					160
Glu	Ser														

<210> 3646
 <211> 621
 <212> PRT
 <213> Homo sapiens

<400> 3646

Glu Arg Gly Gly Gly Lys Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
 1 5 10 15
 Ala Arg Ala Leu Ala Ala Ser Gly Gln Asp Pro Arg Pro His Pro Arg
 20 25 30
 Ala Pro Pro Trp Asp Asp Ser Gly Asp Asp Asp Glu Ala Thr Thr Pro
 35 40 45
 Ala Asp Lys Ser Glu Leu His His Thr Leu Lys Asn Leu Ser Leu Lys
 50 55 60
 Leu Asp Asp Leu Ser Thr Cys Asn Asp Leu Ile Ala Lys His Gly Ala
 65 70 75 80
 Ala Leu Gln Arg Ser Leu Thr Glu Leu Asp Gly Leu Lys Ile Pro Ser
 85 90 95
 Glu Ser Gly Glu Lys Leu Lys Val Val Asn Glu Arg Ala Thr Leu Phe
 100 105 110
 Arg Ile Thr Ser Asn Ala Met Ile Asn Ala Cys Arg Asp Phe Leu Glu
 115 120 125
 Leu Ala Glu Ile His Ser Arg Lys Trp Gln Arg Ala Leu Gln Tyr Glu
 130 135 140
 Gln Glu Gln Arg Val His Leu Glu Glu Thr Ile Glu Gln Leu Ala Lys
 145 150 155 160
 Gln His Asn Ser Leu Glu Arg Ala Phe His Ser Ala Pro Gly Arg Pro
 165 170 175
 Ala Asn Pro Ser Lys Ser Phe Ile Glu Gly Ser Leu Leu Thr Pro Lys
 180 185 190
 Gly Glu Asp Ser Glu Glu Asp Glu Asp Thr Glu Tyr Phe Asp Ala Met
 195 200 205
 Glu Asp Ser Thr Ser Phe Ile Thr Val Ile Thr Glu Ala Lys Glu Asp
 210 215 220
 Ser Arg Lys Ala Glu Gly Ser Thr Gly Thr Ser Ser Ala Asp Trp Ser
 225 230 235 240
 Ser Ala Asp Asn Val Leu Asp Gly Ala Ser Leu Val Pro Lys Gly Ser
 245 250 255
 Ser Lys Val Lys Arg Arg Val Arg Ile Pro Asn Lys Pro Asn Tyr Ser
 260 265 270
 Leu Asn Leu Trp Ser Ile Met Lys Asn Cys Ile Gly Arg Glu Leu Ser
 275 280 285
 Arg Ile Pro Met Pro Val Asn Phe Asn Glu Pro Leu Ser Met Leu Gln
 290 295 300
 Arg Leu Thr Glu Asp Leu Glu Tyr His His Leu Leu Asp Lys Ala Val
 305 310 315 320
 His Cys Thr Ser Ser Val Glu Gln Met Cys Leu Val Ala Ala Phe Ser
 325 330 335
 Val Ser Ser Tyr Ser Thr Thr Val His Arg Ile Ala Lys Pro Phe Asn
 340 345 350
 Pro Met Leu Gly Glu Thr Phe Glu Leu Asp Arg Leu Asp Asp Met Gly
 355 360 365
 Leu Arg Ser Leu Cys Glu Gln Val Ser His His Pro Pro Ser Ala Ala
 370 375 380
 His Tyr Val Phe Ser Lys His Gly Trp Ser Leu Trp Gln Glu Ile Thr
 385 390 395 400
 Ile Ser Ser Lys Phe Arg Gly Lys Tyr Ile Ser Ile Met Pro Leu Gly
 405 410 415
 Ala Ile His Leu Glu Phe Gln Ala Ser Gly Asn His Tyr Val Trp Arg
 420 425 430
 Lys Ser Thr Ser Thr Val His Asn Ile Ile Val Gly Lys Leu Trp Ile
 435 440 445
 Asp Gln Ser Gly Asp Ile Glu Ile Val Asn His Lys Thr Asn Asp Arg
 450 455 460
 Cys Gln Leu Lys Phe Leu Pro Tyr Ser Tyr Phe Ser Lys Glu Ala Ala
 465 470 475 480
 Arg Lys Val Thr Gly Val Val Ser Asp Ser Gln Gly Lys Ala His Tyr

				485					490					495			
Val	Leu	Ser	Gly	Ser	Trp	Asp	Glu	Gln	Met	Glu	Cys	Ser	Lys	Val	Met		
			500					505					510				
His	Ser	Ser	Pro	Ser	Ser	Pro	Ser	Ser	Asp	Gly	Lys	Gln	Lys	Thr	Val		
		515					520					525					
Tyr	Gln	Thr	Leu	Ser	Ala	Lys	Leu	Leu	Trp	Lys	Lys	Tyr	Pro	Leu	Pro		
	530					535					540						
Glu	Asn	Ala	Glu	Asn	Met	Tyr	Tyr	Phe	Ser	Glu	Leu	Ala	Leu	Thr	Leu		
545					550					555					560		
Asn	Glu	His	Glu	Glu	Gly	Val	Ala	Pro	Thr	Asp	Ser	Arg	Leu	Arg	Pro		
			565						570				575				
Asp	Gln	Arg	Leu	Met	Glu	Lys	Gly	Arg	Trp	Asp	Glu	Ala	Asn	Thr	Glu		
			580					585					590				
Lys	Gln	Arg	Leu	Glu	Glu	Lys	Gln	Arg	Leu	Ser	Arg	Arg	Arg	Arg	Leu		
		595					600					605					
Glu	Ala	Cys	Gly	Pro	Gly	Ser	Ser	Cys	Ser	Ser	Glu	Glu					
	610					615					620	621					

<210> 3647
 <211> 1654
 <212> PRT
 <213> Homo sapiens

<400> 3647

Pro	Thr	Gly	Asp	Ala	Cys	Val	Ser	Thr	Ser	Cys	Glu	Leu	Ala	Ser	Ala		
1				5					10					15			
Leu	Ser	His	Leu	Asp	Ala	Ser	His	Leu	Thr	Glu	Asn	Leu	Pro	Lys	Ala		
			20					25					30				
Ala	Ser	Glu	Leu	Gly	Gln	Gln	Pro	Met	Thr	Glu	Leu	Asp	Ser	Ser	Ser		
		35					40					45					
Asp	Leu	Ile	Ser	Ser	Pro	Gly	Lys	Lys	Gly	Ala	Ala	His	Pro	Asp	Pro		
	50					55					60						
Ser	Lys	Thr	Ser	Val	Asp	Thr	Gly	Gln	Val	Ser	Arg	Pro	Glu	Asn	Pro		
65					70					75				80			
Ser	Gln	Pro	Ala	Ser	Pro	Arg	Val	Thr	Lys	Cys	Lys	Ala	Arg	Ser	Pro		
				85					90					95			
Val	Arg	Leu	Pro	His	Glu	Gly	Ser	Pro	Ser	Pro	Gly	Glu	Lys	Ala	Ala		
			100					105					110				
Ala	Pro	Pro	Asp	Tyr	Ser	Lys	Thr	Arg	Ser	Ala	Ser	Glu	Thr	Ser	Thr		
		115					120					125					
Pro	His	Asn	Thr	Arg	Arg	Val	Ala	Ala	Leu	Arg	Gly	Ala	Gly	Pro	Gly		
	130					135					140						
Ala	Glu	Gly	Met	Thr	Pro	Ala	Gly	Ala	Val	Leu	Pro	Gly	Asp	Pro	Leu		
145					150					155				160			
Thr	Ser	Gln	Glu	Gln	Arg	Gln	Gly	Ala	Pro	Gly	Asn	His	Ser	Lys	Ala		
			165					170						175			
Leu	Glu	Met	Thr	Gly	Ile	His	Ala	Pro	Glu	Ser	Ser	Gln	Glu	Pro	Ser		
		180						185					190				
Leu	Leu	Glu	Gly	Ala	Asp	Ser	Val	Ser	Ser	Arg	Ala	Pro	Gln	Ala	Ser		
		195					200					205					
Leu	Ser	Met	Leu	Pro	Ser	Thr	Asp	Asn	Thr	Lys	Glu	Ala	Cys	Gly	His		
	210					215					220						
Val	Ser	Gly	His	Cys	Cys	Pro	Gly	Gly	Ser	Arg	Glu	Ser	Pro	Val	Thr		
225					230					235				240			
Asp	Ile	Asp	Ser	Phe	Ile	Lys	Glu	Leu	Asp	Ala	Ser	Ala	Ala	Arg	Ser		
				245					250					255			
Pro	Ser	Ser	Gln	Thr	Gly	Asp	Ser	Gly	Ser	Gln	Glu	Gly	Ser	Ala	Gln		
		260						265					270				
Gly	His	Pro	Pro	Ala	Gly	Ala	Gly	Gly	Gly	Ser	Ser	Cys	Arg	Ala	Glu		
		275					280					285					
Pro	Val	Pro	Gly	Gly	Gln	Thr	Ser	Ser	Pro	Arg	Arg	Ala	Trp	Ala	Ala		

290	295	300
Gly Ala Pro Ala Tyr Pro	Gln Trp Ala Ser Gln	Pro Ser Val Leu Asp
305	310	315
Ser Ile Asn Pro Asp Lys	His Phe Thr Val Asn	Lys Asn Phe Leu Ser
325	330	335
Asn Tyr Ser Arg Asn Phe	Ser Ser Phe His Glu	Asp Ser Thr Ser Leu
340	345	350
Ser Gly Leu Gly Asp Ser	Thr Glu Pro Ser Leu	Ser Ser Met Tyr Gly
355	360	365
Asp Ala Glu Asp Ser Ser	Ser Asp Pro Glu Ser	Leu Thr Glu Ala Pro
370	375	380
Arg Ala Ser Ala Arg Asp	Gly Trp Ser Pro Pro	Arg Ser Arg Val Ser
385	390	395
Leu His Lys Glu Asp Pro	Ser Glu Ser Glu Glu	Gln Ile Glu Ile
405	410	415
Cys Ser Thr Arg Gly Cys	Pro Asn Pro Pro Ser	Ser Pro Ala His Leu
420	425	430
Pro Thr Gln Ala Ala Ile	Cys Pro Ala Ser Ala	Lys Val Leu Ser Leu
435	440	445
Lys Tyr Ser Thr Pro Arg	Glu Ser Val Ala Ser	Pro Arg Glu Lys Val
450	455	460
Ala Cys Leu Pro Gly Ser	Tyr Thr Ser Gly Pro	Asp Ser Ser Gln Pro
465	470	475
Ser Ser Leu Leu Glu Met	Ser Ser Gln Glu His	Glu Thr His Ala Asp
485	490	495
Ile Ser Thr Ser Gln Asn	His Arg Pro Ser Cys	Ala Glu Glu Thr Thr
500	505	510
Glu Val Thr Ser Ala Ser	Ser Ala Met Glu Asn	Ser Pro Leu Ser Lys
515	520	525
Val Ala Arg His Phe His	Ser Pro Pro Ile Ile	Leu Ser Ser Pro Asn
530	535	540
Met Val Asn Gly Leu Glu	His Asp Leu Leu Asp	Asp Glu Thr Leu Asn
545	550	555
Gln Tyr Glu Thr Ser Ile	Asn Ala Ala Ala Ser	Leu Ser Ser Phe Ser
565	570	575
Val Asp Val Pro Lys Asn	Gly Glu Ser Val Leu	Glu Asn Leu His Ile
580	585	590
Ser Glu Ser Gln Asp Leu	Asp Asp Leu Leu Gln	Lys Pro Lys Met Ile
595	600	605
Ala Arg Arg Pro Ile Met	Ala Trp Phe Lys Glu	Ile Asn Lys His Asn
610	615	620
Gln Gly Thr His Leu Arg	Ser Lys Thr Glu Lys	Glu Gln Pro Leu Met
625	630	635
Pro Ala Arg Ser Pro Asp	Ser Lys Ile Gln Met	Val Ser Ser Ser Gln
645	650	655
Lys Lys Gly Val Thr Val	Pro His Ser Pro Pro	Gln Pro Lys Thr Asn
660	665	670
Leu Glu Asn Lys Asp Leu	Ser Lys Lys Ser Pro	Ala Glu Met Leu Leu
675	680	685
Thr Asn Gly Gln Lys Ala	Lys Cys Gly Pro Lys	Leu Lys Arg Leu Ser
690	695	700
Leu Lys Gly Lys Ala Lys	Val Asn Ser Glu Ala	Pro Ala Ala Asn Ala
705	710	715
Val Lys Ala Gly Gly Thr	Asp His Arg Lys Pro	Leu Ile Ser Pro Gln
725	730	735
Thr Ser His Lys Thr Leu	Ser Lys Ala Val Ser	Gln Arg Leu His Val
740	745	750
Ala Asp His Glu Asp Pro	Asp Arg Asn Thr Thr	Ala Ala Pro Arg Ser
755	760	765
Pro Gln Cys Val Leu Glu	Ser Lys Pro Pro Leu	Ala Thr Ser Gly Pro
770	775	780
Leu Lys Pro Ser Val Ser	Asp Thr Ser Ile Arg	Thr Phe Val Ser Pro
785	790	795
Leu Thr Ser Pro Lys Pro	Val Pro Glu Gln Gly	Met Trp Ser Arg Phe

5417

1315 1320 1325
 Leu Glu Ile Thr Pro Arg Arg Ser Pro Gly Pro Pro Ala Gly Gly Val
 1330 1335 1340
 Ser Cys Pro Glu Lys Gly Gly Asn Arg Ala Cys Pro Gly Gly Ser Gly
 1345 1350 1355 1360
 Pro Lys Thr Ser Ala Ala Glu Thr Pro Ser Ser Ala Ser Asp Thr Gly
 1365 1370 1375
 Glu Ala Ala Gln Asp Leu Pro Phe Arg Arg Ser Trp Ser Val Asn Leu
 1380 1385 1390
 Asp Gln Leu Leu Val Ser Ala Gly Asp Gln Gln Arg Leu Gln Ser Val
 1395 1400 1405
 Leu Ser Ser Val Gly Ser Lys Ser Thr Ile Leu Thr Leu Ile Gln Glu
 1410 1415 1420
 Ala Lys Ala Gln Ser Glu Asn Glu Glu Asp Val Cys Phe Ile Val Leu
 1425 1430 1435 1440
 Asn Arg Lys Glu Gly Ser Gly Leu Gly Phe Ser Val Ala Gly Gly Thr
 1445 1450 1455
 Asp Val Glu Pro Lys Ser Ile Thr Val His Arg Val Phe Ser Gln Gly
 1460 1465 1470
 Ala Ala Ser Gln Glu Gly Thr Met Asn Arg Gly Asp Phe Leu Leu Ser
 1475 1480 1485
 Val Asn Gly Ala Ser Leu Ala Gly Leu Ala His Gly Asn Val Leu Lys
 1490 1495 1500
 Val Leu His Gln Ala Gln Leu His Lys Asp Ala Leu Val Val Ile Lys
 1505 1510 1515 1520
 Lys Gly Met Asp Gln Pro Arg Pro Ser Ala Arg Gln Glu Pro Pro Thr
 1525 1530 1535
 Ala Asn Gly Lys Gly Leu Leu Ser Arg Lys Thr Ile Pro Leu Glu Pro
 1540 1545 1550
 Gly Ile Gly Arg Ser Val Ala Val His Asp Ala Leu Cys Val Glu Val
 1555 1560 1565
 Leu Lys Thr Ser Ala Gly Leu Gly Leu Ser Leu Asp Gly Gly Lys Ser
 1570 1575 1580
 Ser Val Thr Gly Asp Gly Pro Leu Val Ile Lys Arg Val Tyr Lys Gly
 1585 1590 1595 1600
 Gly Ala Ala Glu Gln Ala Gly Ile Ile Glu Ala Gly Asp Glu Ile Leu
 1605 1610 1615
 Ala Ile Asn Gly Lys Pro Leu Val Gly Leu Met His Phe Asp Ala Trp
 1620 1625 1630
 Asn Ile Met Lys Ser Val Pro Glu Gly Pro Val Gln Leu Leu Ile Arg
 1635 1640 1645
 Lys His Arg Asn Ser Ser
 1650 1654

<210> 3648

<211> 409

<212> PRT

<213> Homo sapiens

<400> 3648

Lys Ser Arg Leu Ser Val Thr Leu Met Pro Val Gln Leu Ser Glu His
 1 5 10 15
 Pro Glu Trp Asn Glu Ser Met His Ser Leu Arg Ile Ser Val Gly Gly
 20 25 30
 Leu Pro Val Leu Ala Ser Met Thr Lys Ala Ala Asp Pro Arg Phe Arg
 35 40 45
 Pro Arg Trp Lys Val Val Leu Thr Phe Phe Val Gly Ala Ala Ile Leu
 50 55 60
 Trp Leu Leu Cys Ser His Arg Pro Ala Pro Gly Arg Pro Pro Thr His
 65 70 75 80
 Asn Ala His Asn Trp Arg Leu Gly Gln Ala Pro Ala Asn Trp Tyr Asn

				85					90					95			
Asp	Thr	Tyr	Pro	Leu	Ser	Pro	Pro	Gln	Arg	Thr	Pro	Ala	Gly	Ile	Arg		
			100					105					110				
Tyr	Arg	Ile	Ala	Val	Ile	Ala	Asp	Leu	Asp	Thr	Glu	Ser	Arg	Ala	Gln		
		115					120					125					
Glu	Glu	Asn	Thr	Trp	Phe	Thr	Tyr	Leu	Lys	Lys	Gly	Tyr	Leu	Thr	Phe		
	130					135					140						
Ser	Asp	Ser	Gly	Asp	Lys	Val	Ala	Val	Glu	Trp	Asp	Lys	Asp	His	Gly		
145				150					155					160			
Val	Leu	Glu	Ser	His	Leu	Ala	Glu	Lys	Gly	Arg	Gly	Met	Glu	Leu	Ser		
			165					170					175				
Asp	Leu	Ile	Val	Phe	Asn	Gly	Lys	Leu	Tyr	Ser	Val	Asp	Asp	Arg	Thr		
		180				185						190					
Gly	Val	Val	Tyr	Gln	Ile	Glu	Gly	Ser	Lys	Ala	Val	Pro	Trp	Val	Ile		
	195					200					205						
Leu	Ser	Asp	Gly	Asp	Gly	Thr	Val	Glu	Lys	Gly	Phe	Lys	Ala	Glu	Trp		
	210				215						220						
Leu	Ala	Val	Lys	Asp	Glu	Arg	Leu	Tyr	Val	Gly	Gly	Leu	Gly	Lys	Glu		
225				230				235						240			
Trp	Thr	Thr	Thr	Thr	Gly	Asp	Val	Val	Asn	Glu	Asn	Pro	Glu	Trp	Val		
			245					250						255			
Lys	Val	Val	Gly	Tyr	Lys	Gly	Ser	Val	Asp	His	Glu	Asn	Trp	Val	Ser		
		260				265						270					
Asn	Tyr	Asn	Ala	Leu	Arg	Ala	Ala	Ala	Gly	Ile	Gln	Pro	Pro	Gly	Tyr		
	275					280					285						
Leu	Ile	His	Glu	Ser	Ala	Cys	Trp	Ser	Asp	Thr	Leu	Gln	Arg	Trp	Phe		
	290				295						300						
Phe	Leu	Pro	Arg	Arg	Ala	Ser	Gln	Glu	Arg	Tyr	Ser	Glu	Lys	Asp	Asp		
305				310					315					320			
Glu	Arg	Lys	Gly	Ala	Asn	Leu	Leu	Leu	Ser	Ala	Ser	Pro	Asp	Phe	Gly		
			325				330							335			
Asp	Ile	Ala	Val	Ser	His	Val	Gly	Ala	Val	Val	Pro	Thr	His	Gly	Phe		
		340				345					350						
Ser	Ser	Phe	Lys	Phe	Ile	Pro	Asn	Thr	Asp	Asp	Gln	Ile	Ile	Val	Ala		
	355				360						365						
Leu	Lys	Ser	Glu	Glu	Asp	Ser	Gly	Arg	Val	Ala	Ser	Tyr	Ile	Met	Ala		
370				375				380									
Phe	Thr	Leu	Asp	Gly	Arg	Phe	Leu	Leu	Pro	Glu	Thr	Lys	Ile	Gly	Ser		
385				390				395						400			
Val	Lys	Tyr	Glu	Gly	Ile	Glu	Phe	Ile									
			405			409											

<210> 3649

<211> 258

<212> PRT

<213> Homo sapiens

<400> 3649

Pro	Thr	Arg	Pro	Gly	Ser	Gly	Ser	Ala	Gly	Gly	Ala	Arg	Val	Gly	Ser		
1			5					10				15					
Gly	Glu	Phe	Gly	Val	Glu	Met	Ala	Ala	Leu	Ala	Pro	Leu	Pro	Pro	Leu		
		20				25					30						
Pro	Ala	Gln	Phe	Lys	Ser	Ile	Gln	His	His	Leu	Arg	Thr	Ala	Gln	Glu		
	35				40				45								
His	Asp	Lys	Arg	Asp	Pro	Val	Val	Ala	Tyr	Tyr	Cys	Arg	Leu	Tyr	Ala		
	50			55				60									
Met	Gln	Thr	Gly	Met	Lys	Ile	Asp	Ser	Lys	Thr	Pro	Glu	Cys	Arg	Lys		
65				70				75						80			
Phe	Leu	Ser	Lys	Leu	Met	Asp	Gln	Leu	Glu	Ala	Leu	Lys	Lys	Gln	Leu		
			85					90					95				
Gly	Asp	Asn	Glu	Ala	Ile	Thr	Gln	Glu	Ile	Val	Gly	Cys	Ala	His	Leu		

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<210> 3650
<211> 314
<212> PRT
<213> Homo sapiens
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5420

			260					265				270				
Pro	Pro	Leu	Ser	Gly	Leu	Ala	Leu	Phe	Leu	Ile	Val	Phe	Phe	Ser	Leu	
		275					280					285				
Val	Phe	Ser	Val	Phe	Ala	Ile	Val	Ile	Gly	Ile	Ile	Leu	Tyr	Asn	Lys	
	290					295					300					
Trp	Gln	Glu	Gln	Ser	Arg	Lys	Arg	Phe	Tyr							
305					310				314							

<210> 3651
 <211> 406
 <212> PRT
 <213> Homo sapiens

<400> 3651

Arg	Ser	Trp	Ala	Tyr	Val	Lys	Lys	Cys	Lys	Asn	Asn	Met	Cys	Pro	Asn	
1				5					10					15		
Arg	Gly	Leu	His	Asp	Gly	Pro	Glu	Pro	Cys	Trp	Leu	His	His	Ala	Ala	
			20					25					30			
Gly	Thr	Val	Ser	Ala	Val	Gln	Ala	Arg	Gly	Leu	Gln	Pro	Ser	Gln	Ser	
	35					40					45					
Arg	Ser	Arg	Pro	Arg	Val	Pro	Gly	Leu	Ala	Thr	Ala	Leu	Ala	Tyr	Gly	
	50					55				60						
Pro	Ala	His	Thr	Pro	Pro	Leu	Ser	Arg	Ile	Gly	Trp	Ala	Met	Gln	Pro	
65					70				75					80		
Pro	Pro	Pro	Gly	Pro	Leu	Gly	Asp	Cys	Leu	Arg	Asp	Trp	Glu	Asp	Leu	
			85					90					95			
Gln	Gln	Asp	Phe	Gln	Asn	Ile	Gln	Val	Ser	Ala	Ala	Ala	Asp	Ala	Gly	
			100				105					110				
Ser	Pro	Pro	Ser	Arg	Val	Ser	Leu	Ala	Gln	Gly	Gln	Gly	Ser	Gly	Ser	
	115						120					125				
Pro	Gly	Cys	Lys	Pro	Ser	Leu	Pro	Ala	Glu	Ala	Glu	Gly	Ala	Ala	Gln	
	130					135					140					
Glu	Leu	Glu	Asn	Gln	Met	Lys	Glu	Arg	Gln	Gly	Leu	Phe	Phe	Asp	Met	
145					150				155						160	
Glu	Ala	Tyr	Leu	Pro	Lys	Lys	Asn	Gly	Leu	Tyr	Leu	Ser	Leu	Val	Leu	
			165					170						175		
Gly	Asn	Val	Asn	Val	Thr	Leu	Leu	Ser	Lys	Gln	Ala	Lys	Phe	Ala	Tyr	
			180					185					190			
Lys	Asp	Glu	Tyr	Glu	Lys	Phe	Lys	Leu	Tyr	Leu	Thr	Ile	Ile	Leu	Ile	
	195						200					205				
Leu	Ile	Ser	Phe	Thr	Cys	Arg	Phe	Leu	Leu	Asn	Ser	Arg	Val	Thr	Asp	
	210					215					220					
Ala	Ala	Phe	Asn	Phe	Leu	Leu	Val	Trp	Tyr	Tyr	Cys	Thr	Leu	Thr	Ile	
225					230					235					240	
Arg	Glu	Ser	Ile	Leu	Ile	Asn	Asn	Gly	Ser	Arg	Ile	Lys	Gly	Trp	Trp	
			245					250						255		
Val	Phe	His	His	Tyr	Val	Ser	Thr	Phe	Leu	Ser	Gly	Val	Met	Leu	Thr	
			260					265					270			
Trp	Pro	Asp	Gly	Leu	Met	Tyr	Gln	Lys	Phe	Arg	Asn	Gln	Phe	Leu	Ser	
	275						280					285				
Phe	Ser	Met	Tyr	Gln	Ser	Phe	Val	Gln	Phe	Leu	Gln	Tyr	Tyr	Tyr	Gln	
	290					295					300					
Ser	Gly	Cys	Leu	Tyr	Arg	Leu	Arg	Ala	Leu	Gly	Glu	Arg	His	Thr	Met	
305					310					315					320	
Asp	Leu	Thr	Val	Glu	Gly	Phe	Gln	Ser	Trp	Met	Trp	Arg	Val	Leu	Thr	
			325						330					335		
Phe	Leu	Leu	Pro	Phe	Leu	Phe	Phe	Gly	His	Phe	Trp	Gln	Leu	Phe	Asn	
			340					345					350			
Ala	Leu	Thr	Leu	Phe	Asn	Leu	Ala	Gln	Asp	Pro	Gln	Cys	Lys	Glu	Trp	
	355						360					365				
Gln	Val	Leu	Met	Cys	Gly	Phe	Pro	Phe	Leu	Leu	Leu	Phe	Leu	Gly	Asn	

370		375		380
Phe Phe Thr Thr Leu Arg	Val Val His His Lys	Phe His Ser Gln Arg		
385	390	395	400	
His Gly Ser Lys Lys Asp				
	405 406			

<210> 3652
 <211> 158
 <212> PRT
 <213> Homo sapiens

<400> 3652

Val Thr Thr Ser Cys Ile Ile Pro Phe Ala Phe Gly Leu Gly Val Arg	
1 5 10 15	
Ala Ser Glu Arg Leu Ala Glu Ile Asp Met Pro Tyr Leu Leu Lys Tyr	
20 25 30	
Gln Pro Met Met Gln Thr Ile Gly Gln Lys Tyr Cys Met Asp Pro Ala	
35 40 45	
Val Ile Ala Gly Val Leu Ser Arg Lys Ser Pro Gly Asp Lys Ile Leu	
50 55 60	
Val Asn Met Gly Asp Arg Thr Ser Met Val Gln Asp Pro Gly Ser Gln	
65 70 75 80	
Ala Pro Thr Ser Trp Ile Ser Glu Ser Gln Val Phe Gln Thr Thr Glu	
85 90 95	
Val Leu Thr Thr Arg Ile Thr Glu Leu Gln Arg Arg Phe Pro Thr Trp	
100 105 110	
Thr Pro Asp Gln Tyr Leu Arg Gly Gly Leu Cys Ala Tyr Ser Gly Gly	
115 120 125	
Ala Gly Tyr Val Arg Ser Ser Gln Asp Leu Ser Cys Asp Phe Cys Asn	
130 135 140	
Asp Val Leu Ala Arg Ala Lys Tyr Leu Lys Arg His Gly Phe	
145 150 155 158	

<210> 3653
 <211> 302
 <212> PRT
 <213> Homo sapiens

<400> 3653

Ile Val Arg Arg Asp Trp Gln Glu Val Ser Asp Ile His Leu Ala Met	
1 5 10 15	
Ala Asn Cys Lys Met Thr Lys Ser Ile Arg Phe Pro Ala Leu Glu His	
20 25 30	
Cys Tyr Thr Gly Gly Glu Val Val Leu Pro Lys Asp Gln Glu Glu Trp	
35 40 45	
Lys Arg Arg Thr Gly Leu Leu Leu Tyr Glu Asn Tyr Gly Gln Ser Glu	
50 55 60	
Thr Gly Leu Ile Cys Ala Thr Tyr Trp Gly Met Lys Ile Lys Pro Gly	
65 70 75 80	
Phe Met Gly Lys Ala Thr Pro Pro Tyr Asp Val Gln Phe His Met Glu	
85 90 95	
Ala Ser Val Glu Asn Cys Ile Ile Val Ser Met Asn Thr Ala Asp Pro	
100 105 110	
Gly Ser Gln Gly Ile Thr His Ser Leu Leu Leu Gln Val Ile Asp Asp	
115 120 125	
Lys Gly Ser Ile Leu Pro Pro Asn Thr Glu Gly Asn Ile Gly Ile Arg	
130 135 140	
Ile Lys Pro Val Arg Pro Val Ser Leu Phe Met Cys Tyr Glu Gly Asp	

145		150		155		160									
Pro	Glu	Lys	Thr	Ala	Lys	Val	Glu	Cys	Gly	Asp	Phe	Tyr	Asn	Thr	Gly
		165		170		175									
Asp	Arg	Gly	Lys	Met	Asp	Glu	Glu	Gly	Tyr	Ile	Cys	Phe	Leu	Gly	Arg
		180		185		190									
Ser	Asp	Asp	Ile	Ile	Asn	Ala	Ser	Gly	Tyr	Arg	Ile	Gly	Pro	Ala	Glu
		195		200		205									
Val	Glu	Ser	Ala	Leu	Val	Glu	His	Pro	Ala	Val	Ala	Glu	Ser	Ala	Val
		210		215		220									
Val	Gly	Ser	Pro	Asp	Pro	Ile	Arg	Gly	Glu	Val	Val	Lys	Ala	Phe	Ile
225				230		235									240
Val	Leu	Thr	Pro	Gln	Phe	Leu	Ser	His	Asp	Lys	Asp	Gln	Leu	Thr	Lys
				245		250									255
Glu	Leu	Gln	Gln	His	Val	Lys	Ser	Val	Thr	Ala	Pro	Tyr	Lys	Tyr	Pro
				260		265									270
Arg	Lys	Val	Glu	Phe	Val	Ser	Glu	Leu	Pro	Lys	Thr	Ile	Thr	Gly	Lys
		275		280		285									
Ile	Glu	Arg	Lys	Glu	Leu	Arg	Lys	Lys	Glu	Thr	Gly	Gln	Met		
		290		295		300							302		

<210> 3654

<211> 302

<212> PRT

<213> Homo sapiens

<400> 3654

Ile	Val	Arg	Arg	Asp	Trp	Gln	Glu	Val	Ser	Asp	Ile	His	Leu	Ala	Met
1				5					10					15	
Ala	Asn	Cys	Lys	Met	Thr	Lys	Ser	Ile	Arg	Phe	Pro	Ala	Leu	Glu	His
		20						25					30		
Cys	Tyr	Thr	Gly	Gly	Glu	Val	Val	Leu	Pro	Lys	Asp	Gln	Glu	Glu	Trp
		35				40						45			
Lys	Arg	Arg	Thr	Gly	Leu	Leu	Leu	Tyr	Glu	Asn	Tyr	Gly	Gln	Ser	Glu
		50				55					60				
Thr	Gly	Leu	Ile	Cys	Ala	Thr	Tyr	Trp	Gly	Met	Lys	Ile	Lys	Pro	Gly
65				70					75					80	
Phe	Met	Gly	Lys	Ala	Thr	Pro	Pro	Tyr	Asp	Val	Gln	Phe	His	Met	Glu
				85					90					95	
Ala	Ser	Val	Glu	Asn	Cys	Ile	Ile	Val	Ser	Met	Asn	Thr	Ala	Asp	Pro
		100						105					110		
Gly	Ser	Gln	Gly	Ile	Thr	His	Ser	Leu	Leu	Leu	Gln	Val	Ile	Asp	Asp
		115				120						125			
Lys	Gly	Ser	Ile	Leu	Pro	Pro	Asn	Thr	Glu	Gly	Asn	Ile	Gly	Ile	Arg
		130				135					140				
Ile	Lys	Pro	Val	Arg	Pro	Val	Ser	Leu	Phe	Met	Cys	Tyr	Glu	Gly	Asp
145				150					155					160	
Pro	Glu	Lys	Thr	Ala	Lys	Val	Glu	Cys	Gly	Asp	Phe	Tyr	Asn	Thr	Gly
				165					170					175	
Asp	Arg	Gly	Lys	Met	Asp	Glu	Glu	Gly	Tyr	Ile	Cys	Phe	Leu	Gly	Arg
		180						185					190		
Ser	Asp	Asp	Ile	Ile	Asn	Ala	Ser	Gly	Tyr	Arg	Ile	Gly	Pro	Ala	Glu
		195				200						205			
Val	Glu	Ser	Ala	Leu	Val	Glu	His	Pro	Ala	Val	Ala	Glu	Ser	Ala	Val
		210				215						220			
Val	Gly	Ser	Pro	Asp	Pro	Ile	Arg	Gly	Glu	Val	Val	Lys	Ala	Phe	Ile
225				230					235						240
Val	Leu	Thr	Pro	Gln	Phe	Leu	Ser	His	Asp	Lys	Asp	Gln	Leu	Thr	Lys
				245					250					255	
Glu	Leu	Gln	Gln	His	Val	Lys	Ser	Val	Thr	Ala	Pro	Tyr	Lys	Tyr	Pro
		260						265				270			
Arg	Lys	Val	Glu	Phe	Val	Ser	Glu	Leu	Pro	Lys	Thr	Ile	Thr	Gly	Lys

275	280	285
Ile Glu Arg Lys Glu Leu Arg Lys Lys Glu Thr Gly Gln Met		
290	295	300 302

<210> 3655
 <211> 787
 <212> PRT
 <213> Homo sapiens

<400> 3655

Ser	Pro	Gly	Pro	Ser	Leu	Pro	Glu	Ser	Ala	Glu	Ser	Leu	Asp	Gly	Ser
1				5					10					15	
Gln	Glu	Asp	Lys	Pro	Arg	Gly	Ser	Cys	Ala	Glu	Pro	Thr	Phe	Thr	Asp
			20					25					30		
Thr	Gly	Met	Val	Ala	His	Ile	Asn	Asn	Ser	Arg	Leu	Lys	Ala	Lys	Gly
		35					40					45			
Val	Gly	Gln	His	Asp	Asn	Ala	Gln	Asn	Phe	Gly	Asn	Gln	Ser	Phe	Glu
	50					55					60				
Glu	Leu	Arg	Ala	Ala	Cys	Leu	Arg	Lys	Gly	Glu	Leu	Phe	Glu	Asp	Pro
65					70					75					80
Leu	Phe	Pro	Ala	Glu	Pro	Ser	Ser	Leu	Gly	Phe	Lys	Asp	Leu	Gly	Pro
			85						90					95	
Asn	Ser	Lys	Asn	Val	Gln	Asn	Ile	Ser	Trp	Gln	Arg	Pro	Lys	Asp	Ile
			100					105					110		
Ile	Asn	Asn	Pro	Leu	Phe	Ile	Met	Asp	Gly	Ile	Ser	Pro	Thr	Asp	Ile
		115					120						125		
Cys	Gln	Gly	Ile	Leu	Gly	Asp	Cys	Trp	Leu	Leu	Ala	Ala	Ile	Gly	Ser
	130					135					140				
Leu	Thr	Thr	Cys	Pro	Lys	Leu	Leu	Tyr	Arg	Val	Val	Pro	Arg	Gly	Gln
145					150					155					160
Ser	Phe	Lys	Lys	Asn	Tyr	Ala	Gly	Ile	Phe	His	Phe	Gln	Ile	Trp	Gln
			165					170						175	
Phe	Gly	Gln	Trp	Val	Asn	Val	Val	Val	Asp	Asp	Arg	Leu	Pro	Thr	Lys
			180					185					190		
Asn	Asp	Lys	Leu	Val	Phe	Val	His	Ser	Thr	Glu	Arg	Ser	Glu	Phe	Trp
		195					200					205			
Ser	Ala	Leu	Leu	Glu	Lys	Ala	Tyr	Ala	Lys	Leu	Ser	Gly	Ser	Tyr	Glu
	210					215						220			
Ala	Leu	Ser	Gly	Gly	Ser	Thr	Met	Glu	Gly	Leu	Glu	Asp	Phe	Thr	Gly
225					230					235					240
Gly	Val	Ala	Gln	Ser	Phe	Gln	Leu	Gln	Arg	Pro	Pro	Gln	Asn	Leu	Leu
			245						250					255	
Arg	Leu	Leu	Arg	Lys	Ala	Val	Glu	Arg	Ser	Ser	Leu	Met	Gly	Cys	Ser
			260					265					270		
Ile	Glu	Val	Thr	Ser	Asp	Ser	Glu	Leu	Glu	Ser	Met	Thr	Asp	Lys	Met
		275					280					285			
Leu	Val	Arg	Gly	His	Ala	Tyr	Ser	Val	Thr	Gly	Leu	Gln	Asp	Val	His
	290					295					300				
Tyr	Arg	Gly	Lys	Met	Glu	Thr	Leu	Ile	Arg	Val	Arg	Asn	Pro	Trp	Gly
305				310						315					320
Arg	Ile	Glu	Trp	Asn	Gly	Ala	Trp	Ser	Asp	Ser	Ala	Arg	Glu	Trp	Glu
			325						330					335	
Glu	Val	Ala	Ser	Asp	Ile	Gln	Met	Gln	Leu	Leu	His	Lys	Thr	Glu	Asp
			340				345						350		
Gly	Glu	Phe	Trp	Met	Ser	Tyr	Gln	Asp	Phe	Leu	Asn	Asn	Phe	Thr	Leu
		355					360				365				
Leu	Glu	Ile	Cys	Asn	Leu	Thr	Pro	Asp	Thr	Leu	Ser	Gly	Asp	Tyr	Lys
	370					375					380				
Ser	Tyr	Trp	His	Thr	Thr	Phe	Tyr	Glu	Gly	Ser	Trp	Arg	Thr	Gly	Ser
385				390						395					400
Ser	Ala	Gly	Gly	Cys	Arg	Asn	His	Pro	Gly	Thr	Phe	Trp	Thr	Asn	Pro

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<210> 3656
<211> 56
<212> PRT
<213> Homo sapiens
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5425

35 40 45
 Phe Ser Gly Lys Arg Leu Val Ala
 50 55 56

<210> 3657
 <211> 148
 <212> PRT
 <213> Homo sapiens

<400> 3657
 Asp Thr Arg Ser Thr Tyr His Asn Ala His Ser Leu Pro Thr Tyr Val
 1 5 10 15
 Lys Ser Pro Ala Pro Cys Gln Met Thr Tyr Ile Lys Ser Pro Ala Pro
 20 25 30
 Cys Gln Thr Gln Thr Cys Tyr Val Gln Gly Ala Ser Pro Cys Gln Ser
 35 40 45
 Tyr Tyr Val Gln Ala Pro Ala Ser Gly Ser Thr Ser Gln Tyr Cys Val
 50 55 60
 Thr Asp Pro Cys Ser Ala Pro Cys Ser Thr Ser Tyr Cys Cys Leu Ala
 65 70 75 80
 Pro Arg Thr Phe Gly Val Ser Pro Leu Arg Arg Trp Ile Gln Arg Pro
 85 90 95
 Gln Asn Cys Asn Thr Gly Ser Ser Gly Cys Cys Glu Asn Ser Gly Ser
 100 105 110
 Ser Gly Cys Cys Gly Ser Gly Gly Cys Gly Cys Ser Cys Gly Cys Gly
 115 120 125
 Ser Ser Gly Cys Cys Cys Leu Gly Ile Ile Pro Met Lys Ser Arg Ser
 130 135 140
 Pro Ala Leu Leu
 145 148

<210> 3658
 <211> 482
 <212> PRT
 <213> Homo sapiens

<400> 3658
 Ser Glu Ala Pro Val Gln Pro Gln Pro Tyr Thr Met Thr Ser Phe Tyr
 1 5 10 15
 Ser Thr Ser Ser Cys Pro Leu Gly Cys Thr Met Ala Pro Gly Ala Arg
 20 25 30
 Asn Val Phe Val Ser Pro Ile Asp Val Gly Cys Gln Pro Val Ala Glu
 35 40 45
 Ala Asn Ala Ala Ser Met Cys Leu Leu Ala Asn Val Ala His Ala Asn
 50 55 60
 Arg Val Arg Val Gly Ser Thr Pro Leu Gly Arg Pro Ser Leu Cys Leu
 65 70 75 80
 Pro Pro Thr Ser His Thr Ala Cys Pro Leu Pro Gly Thr Cys His Ile
 85 90 95
 Pro Gly Asn Ile Gly Ile Cys Gly Ala Tyr Gly Lys Asn Thr Leu Asn
 100 105 110
 Gly His Glu Lys Glu Thr Met Lys Phe Leu Asn Asp Arg Leu Ala Asn
 115 120 125
 Tyr Leu Glu Lys Val Arg Gln Leu Glu Gln Glu Asn Ala Glu Leu Glu
 130 135 140
 Thr Thr Leu Leu Glu Arg Ser Lys Cys His Glu Ser Thr Val Cys Pro
 145 150 155 160
 Asp Tyr Gln Ser Tyr Phe Arg Thr Ile Glu Glu Leu Gln Gln Lys Ile

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<210> 3659
<211> 133
<212> PRT
<213> Homo sapiens
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5427

	100		105		110
Gly	Ser Ser Cys Cys His Ser	Ser Ser Gly Gly Ser Gly	Cys Cys His Ser		
	115	120	125		
Ser	Gly Gly Cys Cys				
	130	133			

<210> 3660
 <211> 228
 <212> PRT
 <213> Homo sapiens

<400> 3660

Cys	Ser	Ala	Val	Glu	Val	Lys	Met	Ala	Ala	Arg	Thr	Ala	Phe	Gly	Ala
1				5					10					15	
Val	Cys	Arg	Arg	Leu	Trp	Gln	Gly	Leu	Gly	Asn	Phe	Ser	Val	Asn	Thr
		20					25						30		
Ser	Lys	Gly	Asn	Thr	Ala	Lys	Asn	Gly	Gly	Leu	Leu	Leu	Ser	Thr	Asn
		35					40					45			
Met	Lys	Trp	Val	Gln	Phe	Ser	Asn	Leu	His	Val	Asp	Val	Pro	Lys	Asp
	50					55					60				
Leu	Thr	Lys	Pro	Val	Val	Thr	Ile	Ser	Asp	Glu	Pro	Asp	Ile	Leu	Tyr
65					70					75				80	
Lys	Arg	Leu	Ser	Val	Leu	Val	Lys	Gly	His	Asp	Lys	Ala	Val	Leu	Asp
				85					90					95	
Ser	Tyr	Glu	Tyr	Phe	Ala	Val	Leu	Ala	Ala	Lys	Glu	Leu	Gly	Ile	Ser
		100						105					110		
Ile	Lys	Val	His	Glu	Pro	Pro	Arg	Lys	Ile	Glu	Arg	Phe	Thr	Leu	Leu
	115						120					125			
Gln	Ser	Val	His	Ile	Tyr	Lys	Lys	His	Arg	Val	Gln	Tyr	Glu	Met	Arg
	130					135					140				
Thr	Leu	Tyr	Arg	Cys	Leu	Glu	Leu	Glu	His	Leu	Thr	Gly	Ser	Thr	Ala
145					150					155					160
Asp	Val	Tyr	Leu	Glu	Tyr	Ile	Gln	Arg	Asn	Leu	Pro	Glu	Gly	Val	Ala
				165					170					175	
Met	Glu	Val	Thr	Lys	Phe	Cys	Phe	Phe	Ile	Phe	Leu	Asp	Thr	Ile	Arg
		180						185					190		
Thr	Val	Thr	Arg	Thr	His	Gln	Gly	Ala	Asn	Leu	Gly	Asn	Thr	Ile	Arg
		195					200					205			
Arg	Lys	Arg	Arg	Lys	Gln	Val	Ile	Lys	Pro	Gln	Gly	Gly	His	Phe	Cys
	210					215					220				
Leu	Asn	Leu	Lys												
225			228												

<210> 3661
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 3661

Asp	Val	Ser	Val	Ala	Ala	Ser	Glu	Pro	Thr	Val	Tyr	Arg	Asn	Pro	Thr
1				5					10					15	
Lys	Met	Ser	Cys	Gln	Gln	Asn	Gln	Gln	Gln	Cys	Gln	Pro	Pro	Pro	Lys
			20					25					30		
Cys	Pro	Ile	Pro	Lys	Tyr	Pro	Pro	Lys	Cys	Pro	Ser	Lys	Cys	Ala	Ser
		35					40					45			
Ser	Cys	Pro	Pro	Pro	Ile	Ser	Ser	Cys	Cys	Gly	Ser	Ser	Ser	Gly	Gly
	50					55					60				
Cys	Cys	Ser	Ser	Gly	Gly	Cys	Gly	Cys	Cys	Ser	Ser	Glu	Gly	Gly	Gly

65					70					75				80	
Cys	Cys	Leu	Ser	His	His	Arg	His	His	Arg	Ser	His	Cys	His	Arg	Pro
				85					90					95	
Lys	Ser	Ser	Asn	Cys	Tyr	Gly	Ser	Gly	Ser	Gly	Gln	Gln	Ser	Gly	Gly
			100					105					110		
Ser	Gly	Cys	Cys	Ser	Gly	Gly	Gly	Cys	Cys						
		115					120		122						

<210> 3662

<211> 357

<212> PRT

<213> Homo sapiens

<400> 3662

Arg	Lys	Ser	Leu	Pro	His	Pro	Asn	Pro	Gln	Lys	Met	Leu	Lys	Lys	Pro
1				5					10					15	
Leu	Ser	Ala	Val	Thr	Trp	Leu	Cys	Ile	Phe	Ile	Val	Ala	Phe	Val	Ser
			20					25					30		
His	Pro	Ala	Trp	Leu	Gln	Lys	Leu	Ser	Lys	His	Lys	Thr	Pro	Ala	Gln
		35				40						45			
Pro	Gln	Leu	Lys	Ala	Ala	Asn	Cys	Cys	Glu	Glu	Val	Lys	Glu	Leu	Lys
		50				55					60				
Ala	Gln	Val	Ala	Asn	Leu	Ser	Ser	Leu	Leu	Ser	Glu	Leu	Asn	Lys	Lys
65				70					75					80	
Gln	Glu	Arg	Asp	Trp	Val	Ser	Val	Val	Met	Gln	Val	Met	Glu	Leu	Glu
			85					90					95		
Ser	Asn	Ser	Lys	Arg	Met	Glu	Ser	Arg	Leu	Thr	Asp	Ala	Glu	Ser	Lys
			100					105					110		
Tyr	Ser	Glu	Met	Asn	Asn	Gln	Ile	Asp	Ile	Met	Gln	Leu	Gln	Ala	Ala
		115				120						125			
Gln	Thr	Val	Thr	Gln	Thr	Ser	Ala	Gly	Lys	Glu	Thr	Ser	Pro	Leu	Arg
	130					135					140				
Glu	Arg	Gly	Val	Pro	Pro	His	Leu	Gln	His	Cys	Phe	Tyr	Ile	Pro	Pro
145				150						155				160	
Asp	Asp	Phe	Leu	Gly	Ser	Pro	Glu	Leu	Glu	Val	Phe	Cys	Asp	Met	Glu
			165						170					175	
Thr	Ser	Gly	Gly	Gly	Trp	Thr	Ile	Ile	Gln	Arg	Arg	Lys	Ser	Gly	Leu
		180						185					190		
Val	Ser	Phe	Tyr	Arg	Asp	Trp	Lys	Gln	Tyr	Lys	Gln	Gly	Phe	Gly	Ser
		195				200						205			
Ile	Arg	Gly	Asp	Phe	Trp	Leu	Gly	Asn	Glu	His	Ile	His	Arg	Leu	Ser
	210					215					220				
Arg	Gln	Pro	Thr	Arg	Leu	Arg	Val	Glu	Met	Glu	Asp	Trp	Glu	Gly	Asn
225				230						235				240	
Leu	Arg	Tyr	Ala	Glu	Tyr	Ser	His	Phe	Val	Leu	Gly	Asn	Glu	Leu	Asn
			245					250						255	
Ser	Tyr	Arg	Leu	Phe	Leu	Gly	Asn	Tyr	Thr	Gly	Asn	Val	Gly	Asn	Asp
			260				265						270		
Ala	Leu	Gln	Tyr	His	Asn	Asn	Thr	Ala	Phe	Ser	Thr	Lys	Asp	Lys	Asp
		275					280					285			
Asn	Asp	Asn	Cys	Leu	Asp	Lys	Cys	Ala	Gln	Leu	Arg	Lys	Gly	Gly	Tyr
	290					295					300				
Trp	Tyr	Asn	Cys	Cys	Thr	Asp	Ser	Asn	Leu	Asn	Gly	Val	Tyr	Tyr	Arg
305					310					315				320	
Leu	Gly	Glu	His	Asn	Lys	His	Leu	Asp	Gly	Ile	Thr	Trp	Tyr	Gly	Trp
			325						330					335	
His	Gly	Ser	Thr	Tyr	Ser	Leu	Lys	Arg	Val	Glu	Met	Lys	Ile	Arg	Pro
			340					345					350		
Glu	Asp	Phe	Lys	Pro											
		355		357											

<210> 3663
 <211> 464
 <212> PRT
 <213> Homo sapiens

<400> 3663
 Leu Ser Ser Ala Lys Glu Thr Leu Ala Gln Met Tyr Asn Thr Val Trp
 1 5 10 15
 Asn Met Glu Asp Leu Asp Leu Glu Tyr Ala Lys Thr Asp Ile Asn Cys
 20 25 30
 Gly Thr Asp Leu Met Phe Tyr Ile Glu Met Asp Pro Pro Ala Leu Pro
 35 40 45
 Pro Lys Pro Pro Lys Pro Thr Thr Val Ala Asn Asn Gly Met Asn Asn
 50 55 60
 Asn Met Ser Leu Gln Asp Ala Glu Trp Tyr Trp Gly Asp Ile Ser Arg
 65 70 75 80
 Glu Glu Val Asn Glu Lys Leu Arg Asp Thr Ala Asp Gly Thr Phe Leu
 85 90 95
 Val Arg Asp Ala Ser Thr Lys Met His Gly Asp Tyr Thr Leu Thr Leu
 100 105 110
 Arg Lys Gly Gly Asn Asn Lys Leu Ile Lys Ile Phe His Arg Asp Gly
 115 120 125
 Lys Tyr Gly Phe Ser Asp Pro Leu Thr Phe Ser Ser Val Val Glu Leu
 130 135 140
 Ile Asn His Tyr Arg Asn Glu Ser Leu Ala Gln Tyr Asn Pro Lys Leu
 145 150 155 160
 Asp Val Lys Leu Leu Tyr Pro Val Ser Lys Tyr Gln Gln Asp Gln Val
 165 170 175
 Val Lys Glu Asp Asn Ile Glu Ala Val Gly Lys Lys Leu His Glu Tyr
 180 185 190
 Asn Thr Gln Phe Gln Glu Lys Ser Arg Glu Tyr Asp Arg Leu Tyr Glu
 195 200 205
 Glu Tyr Thr Arg Thr Ser Gln Glu Ile Gln Met Lys Arg Thr Ala Ile
 210 215 220
 Glu Ala Phe Asn Glu Thr Ile Lys Ile Phe Glu Glu Gln Cys Gln Thr
 225 230 235 240
 Gln Glu Arg Tyr Ser Lys Glu Tyr Ile Glu Lys Phe Lys Arg Glu Gly
 245 250 255
 Asn Glu Lys Glu Ile Gln Arg Ile Met His Asn Tyr Asp Lys Leu Lys
 260 265 270
 Ser Arg Ile Ser Glu Ile Ile Asp Ser Arg Arg Arg Leu Glu Glu Asp
 275 280 285
 Leu Lys Lys Gln Ala Ala Glu Tyr Arg Glu Ile Asp Lys Arg Met Asn
 290 295 300
 Ser Ile Lys Pro Asp Leu Ile Gln Leu Arg Lys Thr Arg Asp Gln Tyr
 305 310 315 320
 Leu Met Trp Leu Thr Gln Lys Gly Val Arg Gln Lys Lys Leu Asn Glu
 325 330 335
 Trp Leu Gly Asn Glu Asn Thr Glu Asp Gln Tyr Ser Leu Val Glu Asp
 340 345 350
 Asp Glu Asp Leu Pro His His Asp Glu Lys Thr Trp Asn Val Gly Ser
 355 360 365
 Ser Asn Arg Asn Lys Ala Glu Asn Leu Leu Arg Gly Lys Arg Asp Gly
 370 375 380
 Thr Phe Leu Val Arg Glu Ser Ser Lys Gln Gly Cys Tyr Ala Cys Ser
 385 390 395 400
 Val Val Val Asp Gly Glu Val Lys His Cys Val Ile Asn Lys Thr Ala
 405 410 415
 Thr Gly Tyr Gly Phe Ala Glu Pro Tyr Asn Leu Tyr Ser Ser Leu Lys
 420 425 430
 Glu Leu Val Leu His Tyr Gln His Thr Ser Leu Val Gln His Asn Asp

	435		440		445
Ser	Leu Asn Val Thr Leu Ala Tyr Pro Val Tyr Ala Gln Gln Arg Arg				
450		455		460	464

<210> 3664
 <211> 179
 <212> PRT
 <213> Homo sapiens

<400> 3664

Gly	Ala	Thr	Val	Glu	Asp	Gln	Ser	Cys	Asn	Phe	Gly	Ser	Leu	Arg	Trp
1				5					10					15	
Val	Val	Ser	Val	Pro	His	Ile	Ser	Ala	Arg	Ser	Cys	Pro	Asp	Pro	Leu
			20					25					30		
Leu	Ser	Arg	Thr	Gly	Arg	Val	Pro	Gly	Gly	Arg	Gly	Ala	Gly	Leu	Pro
		35					40					45			
Arg	His	His	Ser	Pro	Arg	Cys	Cys	Leu	Gln	Val	Phe	Phe	Asn	Gly	Ala
	50					55					60				
Asn	Val	Arg	Gln	Val	Asp	Val	Pro	Thr	Leu	Thr	Gly	Ala	Phe	Gly	Ile
65					70					75					80
Leu	Ala	Ala	His	Val	Pro	Thr	Leu	Gln	Val	Leu	Arg	Pro	Gly	Leu	Val
				85					90					95	
Val	Val	His	Ala	Glu	Asp	Gly	Thr	Thr	Ser	Lys	Tyr	Phe	Val	Ser	Ser
			100					105					110		
Gly	Ser	Ile	Ala	Val	Asn	Ala	Asp	Ser	Ser	Val	Gln	Leu	Leu	Ala	Glu
		115					120					125			
Glu	Ala	Val	Thr	Leu	Asp	Met	Leu	Asp	Leu	Gly	Ala	Ala	Lys	Ala	Asn
	130					135					140				
Leu	Glu	Lys	Ala	Gln	Ala	Glu	Leu	Val	Gly	Thr	Ala	Asp	Glu	Ala	Thr
145					150					155					160
Arg	Ala	Glu	Ile	Gln	Ile	Arg	Ile	Glu	Ala	Asn	Glu	Ala	Leu	Val	Lys
				165				170						175	
Ala	Leu	Glu													
		179													

<210> 3665
 <211> 430
 <212> PRT
 <213> Homo sapiens

<400> 3665

Ala	Ser	Gln	Leu	Ala	Phe	Gly	Gly	Lys	Leu	Thr	Ser	Thr	Pro	Ser	Arg
1				5					10					15	
Asp	Phe	Gln	Gly	Cys	Gly	Arg	Gly	Ala	Val	Thr	Cys	Cys	Ser	Phe	His
		20						25					30		
Glu	His	Arg	His	Gln	Ser	Gly	Arg	Cys	Leu	Ser	Thr	Gly	Met	Ala	Pro
		35					40					45			
Asn	Leu	Lys	Gly	Arg	Pro	Arg	Lys	Lys	Lys	Pro	Cys	Pro	Gln	Arg	Arg
	50					55					60				
Asp	Ser	Phe	Ser	Gly	Val	Lys	Asp	Ser	Asn	Asn	Asn	Ser	Asp	Gly	Lys
65					70					75					80
Ala	Val	Ala	Lys	Val	Lys	Cys	Glu	Ala	Arg	Ser	Ala	Leu	Thr	Lys	Pro
				85					90					95	
Lys	Asn	Asn	His	Asn	Cys	Lys	Lys	Val	Ser	Asn	Glu	Glu	Lys	Pro	Lys
			100					105					110		
Val	Ala	Ile	Gly	Glu	Glu	Cys	Arg	Ala	Asp	Glu	Gln	Ala	Phe	Leu	Val

115	120	125
Ala Leu Tyr Lys Tyr Met	Lys Glu Arg Lys Thr Pro	Ile Glu Arg Ile
130	135	140
Pro Tyr Leu Gly Phe Lys	Gln Ile Asn Leu Trp Thr	Met Phe Gln Ala
145	150	155
Ala Gln Lys Leu Gly Gly	Tyr Glu Thr Ile Thr	Ala Arg Arg Gln Trp
165	170	175
Lys His Ile Tyr Asp Glu	Leu Gly Gly Asn Pro	Gly Ser Thr Ser Ala
180	185	190
Ala Thr Cys Thr Arg Arg	His Tyr Glu Arg Leu	Ile Leu Pro Tyr Glu
195	200	205
Arg Phe Ile Lys Gly Glu	Glu Asp Lys Pro Leu	Pro Pro Ile Lys Pro
210	215	220
Arg Lys Gln Glu Asn Ser	Ser Gln Glu Asn Glu	Asn Lys Thr Lys Val
225	230	235
Ser Gly Thr Lys Arg Ile	Lys His Glu Ile Pro	Lys Ser Lys Lys Glu
245	250	255
Lys Glu Asn Ala Pro Lys	Pro Gln Asp Ala Ala	Glu Val Ser Ser Glu
260	265	270
Gln Glu Lys Glu Gln Glu	Thr Leu Ile Ser Gln	Lys Ser Ile Pro Glu
275	280	285
Pro Leu Pro Ala Ala Asp	Met Lys Lys Lys Ile	Glu Gly Tyr Gln Glu
290	295	300
Phe Ser Ala Lys Pro Leu	Ala Ser Arg Val Asp	Pro Glu Lys Asp Asn
305	310	315
Glu Thr Asp Gln Gly Ser	Asn Ser Glu Lys Val	Ala Glu Glu Ala Gly
325	330	335
Glu Lys Gly Pro Thr Pro	Pro Leu Pro Ser Ala	Pro Leu Ala Pro Glu
340	345	350
Lys Asp Ser Ala Leu Val	Pro Gly Ala Ser Lys	Gln Pro Leu Thr Ser
355	360	365
Pro Ser Ala Leu Val Asp	Ser Lys Gln Glu Ser	Lys Leu Cys Cys Phe
370	375	380
Thr Glu Ser Pro Glu Ser	Glu Pro Gln Glu Ala	Ser Phe Pro Arg Leu
385	390	395
Pro His His Thr Gly His	Arg Trp Gln Thr Arg	Met Arg Arg Arg Met
405	410	415
Thr Asn Cys Pro Pro Trp	Gln Ile Thr Leu Pro	Thr Ala Pro
420	425	430

<210> 3666

<211> 459

<212> PRT

<213> Homo sapiens

<400> 3666

Leu Leu Gln Glu Met Cys	Thr Lys Thr Ile Pro	Val Leu Trp Gly Cys
1	5	10
Phe Leu Leu Trp Asn Leu	Tyr Val Ser Ser	Gln Thr Ile Tyr Pro
20	25	30
Gly Ile Lys Ala Arg Ile	Thr Gln Arg Ala Leu	Asp Tyr Gly Val Gln
35	40	45
Ala Gly Met Lys Met Ile	Glu Gln Met Leu Lys	Glu Lys Lys Leu Pro
50	55	60
Asp Leu Ser Gly Ser Glu	Ser Leu Glu Phe Leu	Lys Val Asp Tyr Val
65	70	75
Asn Tyr Asn Phe Ser Asn	Ile Lys Ile Ser Ala	Phe Ser Phe Pro Asn
85	90	95
Thr Ser Leu Ala Phe Val	Pro Gly Val Gly Ile	Lys Ala Leu Thr Asn
100	105	110
His Gly Thr Ala Asn Ile	Ser Thr Asp Trp Gly	Phe Glu Ser Pro Leu

MISSING AT THE TIME OF PUBLICATION

<210> 3668
 <211> 73
 <212> PRT
 <213> Homo sapiens

<400> 3668
 Val Ala Gly Glu Ala Val Pro Phe Phe Pro Met Met Tyr Ser Glu Pro
 1 5 10 15
 Leu Lys Pro Ser Tyr Leu Ala Leu Val Leu Trp Tyr Phe Leu Leu Thr
 20 25 30
 Gly Tyr Cys Ile Thr Lys Pro Glu Val Ile Phe Lys Ile Glu Gln Gly
 35 40 45
 Glu Glu Pro Trp Ile Leu Glu Lys Gly Phe Pro Ser Gln Cys His Pro
 50 55 60
 Ala Lys Tyr Leu Trp Cys Leu His Asp
 65 70 73

<210> 3669
 <211> 199
 <212> PRT
 <213> Homo sapiens

<400> 3669
 Phe Ser Gly Val Cys Phe Ala Gly Ile Ala Gly Ser Met Ala Thr Leu
 1 5 10 15
 Leu His Asp Ala Val Met Asn Pro Ala Glu Val Val Lys Gln Arg Leu
 20 25 30
 Gln Met Tyr Asn Ser Gln His Arg Ser Ala Ile Ser Cys Ile Arg Thr
 35 40 45
 Val Trp Arg Thr Glu Gly Leu Gly Ala Phe Tyr Arg Ser Tyr Thr Thr
 50 55 60
 Gln Leu Thr Met Asn Ile Pro Phe Gln Ser Ile His Phe Ile Thr Tyr
 65 70 75 80
 Glu Phe Leu Gln Glu Gln Val Asn Pro His Arg Thr Tyr Asn Pro Gln
 85 90 95
 Ser His Ile Ile Ser Gly Gly Leu Ala Gly Ala Leu Ala Ala Ala
 100 105 110
 Thr Thr Pro Leu Asp Val Cys Lys Thr Leu Leu Asn Thr Gln Glu Asn
 115 120 125
 Val Ala Leu Ser Leu Ala Asn Ile Ser Gly Arg Leu Ser Gly Met Ala
 130 135 140
 Asn Ala Phe Arg Thr Val Tyr Gln Leu Asn Gly Leu Ala Gly Tyr Phe
 145 150 155 160
 Lys Gly Ile Gln Ala Arg Val Ile Tyr Gln Met Pro Ser Thr Ala Ile
 165 170 175
 Ser Trp Ser Val Tyr Glu Phe Phe Lys Tyr Phe Leu Thr Lys Arg Gln
 180 185 190
 Leu Glu Asn Arg Ala Pro Tyr
 195 199

<210> 3670
 <211> 51
 <212> PRT
 <213> Homo sapiens

<400> 3670
 Arg Asn Pro Cys Pro Leu Thr Phe Leu Pro Ser Thr Leu Met Val Leu

1	5	10	15												
Leu	Leu	Ser	Leu	Thr	Phe	Phe	Ser	Ala	Leu	Thr	Phe	His	Ser	Ile	Cys
	20		25		30										
Gln	Leu	Arg	Asn	Thr	Gly	Val	Glu	Val	Asp	Ile	Val	Phe	Gln	Arg	Val
	35		40									45			
Ser	Phe	Leu													
	50	51													

<210> 3671
 <211> 152
 <212> PRT
 <213> Homo sapiens

<400> 3671															
Ile	Leu	Lys	Val	Ala	Lys	Lys	Glu	Arg	Thr	Met	Ser	Ser	Leu	Pro	Val
1				5					10					15	
Pro	Tyr	Lys	Leu	Pro	Val	Ser	Leu	Ser	Val	Gly	Ser	Cys	Val	Ile	Ile
		20						25					30		
Lys	Gly	Thr	Pro	Ile	His	Ser	Phe	Ile	Asn	Asp	Pro	Gln	Leu	Gln	Val
		35					40					45			
Asp	Phe	Tyr	Thr	Asp	Met	Asp	Glu	Asp	Ser	Asp	Ile	Ala	Phe	Arg	Phe
	50					55					60				
Arg	Val	His	Phe	Gly	Asn	His	Val	Val	Met	Asn	Arg	Arg	Glu	Phe	Gly
	65				70				75						80
Ile	Trp	Met	Leu	Glu	Glu	Thr	Thr	Asp	Tyr	Val	Pro	Phe	Glu	Asp	Gly
			85					90					95		
Lys	Gln	Phe	Glu	Leu	Cys	Ile	Tyr	Val	His	Tyr	Asn	Glu	Tyr	Glu	Ile
			100					105					110		
Lys	Val	Asn	Gly	His	Thr	His	Leu	Arg	Ala	Leu	Ser	His	Arg	Ile	Pro
		115					120					125			
Pro	Ser	Phe	Val	Glu	Asp	Gly	Cys	Lys	Cys	Pro	Arg	Arg	Tyr	Leu	Pro
	130					135						140			
Trp	Thr	Ser	Val	Cys	Val	Cys	Asn								
145					150		152								

<210> 3672
 <211> 342
 <212> PRT
 <213> Homo sapiens

<400> 3672															
His	Tyr	Ala	Lys	Leu	Gly	Thr	Arg	Pro	Arg	Leu	Lys	Phe	Met	Ser	Ser
1				5					10					15	
Pro	Ser	Leu	Ser	Asp	Leu	Gly	Lys	Arg	Glu	Pro	Ala	Ala	Ala	Ala	Asp
		20						25					30		
Glu	Arg	Gly	Thr	Gln	Gln	Arg	Arg	Ala	Cys	Ala	Asn	Ala	Thr	Trp	Asn
		35					40					45			
Ser	Ile	His	Asn	Gly	Val	Ile	Ala	Val	Phe	Gln	Arg	Lys	Gly	Leu	Pro
	50					55					60				
Asp	Gln	Glu	Leu	Phe	Ser	Leu	Asn	Glu	Gly	Val	Arg	Gln	Leu	Leu	Lys
	65				70				75						80
Thr	Glu	Leu	Gly	Ser	Phe	Phe	Thr	Glu	Tyr	Leu	Gln	Asn	Gln	Leu	Leu
			85					90					95		
Thr	Lys	Gly	Met	Val	Ile	Leu	Arg	Asp	Lys	Ile	Arg	Phe	Tyr	Glu	Gly
			100					105					110		
Gln	Lys	Leu	Asp	Ser	Leu	Ala	Glu	Thr	Trp	Asp	Phe	Phe	Phe	Ser	
		115				120					125				
Asp	Val	Leu	Pro	Met	Leu	Gln	Ala	Ile	Phe	Tyr	Pro	Val	Gln	Gly	Lys

130	135	140
Glu Pro Ser Val Arg	Gln Leu Ala Leu Leu His	Phe Arg Asn Ala Ile
145	150	155
Thr Leu Ser Val Lys	Leu Glu Asp Ala Leu Ala Arg	Ala His Ala Arg
165	170	175
Val Pro Pro Ala Ile	Val Gln Met Leu Leu Val Leu	Gln Gly Val His
180	185	190
Glu Ser Arg Gly Val Thr	Glu Asp Tyr Leu Arg Leu	Glu Thr Leu Val
195	200	205
Gln Lys Val Val Ser Pro	Tyr Leu Gly Thr Tyr Gly	Leu His Ser Ser
210	215	220
Glu Gly Pro Phe Thr His	Ser Cys Ile Leu Glu Lys	Arg Leu Leu Arg
225	230	235
Arg Ser Arg Ser Gly Asp	Val Leu Ala Lys Asn Pro	Val Val Arg Ser
245	250	255
Lys Ser Tyr Asn Thr Pro	Leu Leu Asn Pro Val Gln	Glu His Glu Ala
260	265	270
Glu Gly Ala Ala Ala Gly	Gly Thr Ser Ile Arg Arg	His Ser Val Ser
275	280	285
Glu Met Thr Ser Cys Pro	Glu Pro Gln Gly Phe Ser	Asp Pro Pro Gly
290	295	300
Gln Gly Pro Thr Gly Thr	Phe Arg Ser Ser Pro Ala	Pro His Ser Gly
305	310	315
Pro Cys Pro Ser Arg Leu	Tyr Pro Thr Thr Gln Pro	Pro Glu Gln Gly
325	330	335
Leu Asp Pro Thr Arg Ser		
340	342	

<210> 3673
 <211> 236
 <212> PRT
 <213> Homo sapiens

<400> 3673

Arg Pro Pro Arg Val Trp Tyr Pro Glu Leu Arg Glu Leu Ser Ala Ala	1	5	10	15
Ala Pro Arg Trp Ser His Arg Thr Ala Pro Gly Ile Met Val Phe Tyr	20	25	30	
Phe Thr Ser Ser Val Asn Ser Ser Ala Tyr Thr Ile Tyr Met Gly	35	40	45	
Lys Asp Lys Tyr Glu Asn Glu Asp Leu Ile Lys His Gly Trp Pro Glu	50	55	60	
Asp Ile Trp Phe His Val Asp Lys Leu Ser Ser Ala His Val Tyr Leu	65	70	75	80
Arg Leu His Lys Gly Glu Asn Ile Glu Asp Ile Pro Lys Glu Val Leu	85	90	95	
Met Asp Cys Ala His Leu Val Lys Ala Asn Ser Ile Gln Gly Cys Lys	100	105	110	
Met Asn Asn Val Asn Val Val Tyr Thr Pro Trp Ser Asn Leu Lys Lys	115	120	125	
Thr Ala Asp Met Asp Val Gly Gln Ile Gly Phe His Arg Gln Lys Asp	130	135	140	
Val Lys Ile Val Thr Val Glu Lys Lys Val Asn Glu Ile Leu Asn Arg	145	150	155	160
Leu Glu Lys Thr Lys Val Glu Arg Phe Pro Asp Leu Ala Ala Glu Lys	165	170	175	
Glu Cys Arg Asp Arg Glu Glu Arg Asn Glu Lys Lys Ala Gln Ile Gln	180	185	190	
Glu Met Lys Lys Arg Glu Lys Glu Glu Met Lys Lys Lys Arg Glu Met	195	200	205	
Asp Glu Leu Arg Ser Tyr Ser Ser Leu Met Lys Val Glu Asn Met Ser				

210	215	220
Ser Asn Gln Asp Gly Asn Asp Ser Asp Glu Phe Met		
225	230	235 236

<210> 3674
 <211> 236
 <212> PRT
 <213> Homo sapiens

<400> 3674

Arg	Pro	Pro	Arg	Val	Trp	Tyr	Pro	Glu	Leu	Arg	Glu	Leu	Ser	Ala	Ala
1				5				10						15	
Ala	Pro	Arg	Trp	Ser	His	Arg	Thr	Ala	Pro	Gly	Ile	Met	Val	Phe	Tyr
			20					25					30		
Phe	Thr	Ser	Ser	Ser	Val	Asn	Ser	Ser	Ala	Tyr	Thr	Ile	Tyr	Met	Gly
		35					40					45			
Lys	Asp	Lys	Tyr	Glu	Asn	Glu	Asp	Leu	Ile	Lys	His	Gly	Trp	Pro	Glu
	50					55					60				
Asp	Ile	Trp	Phe	His	Val	Asp	Lys	Leu	Ser	Ser	Ala	His	Val	Tyr	Leu
65					70				75						80
Arg	Leu	His	Lys	Gly	Glu	Asn	Ile	Glu	Asp	Ile	Pro	Lys	Glu	Val	Leu
				85					90					95	
Met	Asp	Cys	Ala	His	Leu	Val	Lys	Ala	Asn	Ser	Ile	Gln	Gly	Cys	Lys
			100					105					110		
Met	Asn	Asn	Val	Asn	Val	Val	Tyr	Thr	Pro	Trp	Ser	Asn	Leu	Lys	Lys
	115						120					125			
Thr	Ala	Asp	Met	Asp	Val	Gly	Gln	Ile	Gly	Phe	His	Arg	Gln	Lys	Asp
	130					135					140				
Val	Lys	Ile	Val	Thr	Val	Glu	Lys	Lys	Val	Asn	Glu	Ile	Leu	Asn	Arg
145					150					155					160
Leu	Glu	Lys	Thr	Lys	Val	Glu	Arg	Phe	Pro	Asp	Leu	Ala	Ala	Glu	Lys
				165					170					175	
Glu	Cys	Arg	Asp	Arg	Glu	Glu	Arg	Asn	Glu	Lys	Lys	Ala	Gln	Ile	Gln
			180					185					190		
Glu	Met	Lys	Lys	Arg	Glu	Lys	Glu	Glu	Met	Lys	Lys	Lys	Arg	Glu	Met
	195						200					205			
Asp	Glu	Leu	Arg	Ser	Tyr	Ser	Ser	Leu	Met	Lys	Val	Glu	Asn	Met	Ser
	210					215					220				
Ser	Asn	Gln	Asp	Gly	Asn	Asp	Ser	Asp	Glu	Phe	Met				
225					230					235	236				

<210> 3675
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 3675

Val	Thr	Leu	Ala	Lys	Met	Arg	Val	His	Ile	Ser	Ser	Cys	Leu	Lys	Val
1				5					10					15	
Gln	Glu	Gln	Met	Ala	Asn	Cys	Pro	Lys	Phe	Val	Pro	Val	Val	Pro	Thr
			20					25					30		
Ser	Gln	Pro	Ile	Pro	Ser	Asn	Ile	Pro	Asn	Arg	Ser	Thr	Phe	Ala	Cys
		35					40					45			
Pro	Tyr	Cys	Gly	Ala	Arg	Asn	Leu	Asp	Gln	Gln	Glu	Leu	Val	Lys	His
	50					55					60				
Cys	Val	Glu	Ser	His	Arg	Ser	Asp	Pro	Asn	Arg	Val	Val	Cys	Pro	Ile
65					70				75						80
Cys	Ser	Ala	Met	Pro	Trp	Gly	Asp	Pro	Ser	Tyr	Lys	Ser	Ala	Asn	Phe

				85						90					95		
Leu	Gln	His	Leu	Leu	His	Arg	His	Lys	Phe	Ser	Tyr	Asp	Thr	Phe	Val		
			100					105					110				
Asp	Tyr	Ser	Ile	Asp	Glu	Glu	Ala	Ala	Phe	Gln	Ala	Ala	Leu	Ala	Leu		
		115					120					125					
Ser	Leu	Ser	Glu	Asn													
	130			133													

<210> 3676

<211> 617

<212> PRT

<213> Homo sapiens

<400> 3676

Thr	Leu	Gly	Arg	Trp	Leu	Leu	Gly	Val	Tyr	Glu	Thr	Val	Ala	Pro	Thr		
1				5					10					15			
Leu	Ala	Cys	Leu	Pro	Arg	Pro	Arg	Leu	Arg	Arg	Arg	Arg	Arg	Arg	Arg		
			20					25					30				
Arg	Arg	Arg	Met	Ile	Ser	Arg	Tyr	Thr	Arg	Lys	Ala	Val	Pro	Gln	Ser		
		35					40					45					
Leu	Glu	Leu	Lys	Gly	Ile	Thr	Lys	His	Ala	Leu	Asn	His	His	Pro	Pro		
	50				55						60						
Pro	Glu	Lys	Leu	Glu	Glu	Ile	Ser	Pro	Thr	Ser	Asp	Ser	His	Glu	Lys		
65				70						75				80			
Asp	Thr	Ser	Ser	Gln	Ser	Lys	Ser	Asp	Ile	Thr	Arg	Glu	Ser	Ser	Phe		
			85					90					95				
Thr	Ser	Ala	Asp	Thr	Gly	Asn	Ser	Leu	Ser	Ala	Phe	Pro	Ser	Tyr	Thr		
			100					105					110				
Gly	Ala	Gly	Ile	Ser	Thr	Glu	Gly	Ser	Ser	Asp	Phe	Ser	Trp	Gly	Tyr		
		115					120					125					
Gly	Glu	Leu	Asp	Gln	Asn	Ala	Thr	Glu	Lys	Val	Gln	Thr	Met	Phe	Thr		
	130					135					140						
Ala	Ile	Asp	Glu	Leu	Leu	Tyr	Glu	Gln	Lys	Leu	Ser	Val	His	Thr	Lys		
145				150					155						160		
Ser	Leu	Gln	Glu	Glu	Cys	Gln	Gln	Trp	Thr	Ala	Ser	Phe	Pro	His	Leu		
			165					170						175			
Arg	Ile	Leu	Gly	Arg	Gln	Ile	Ile	Thr	Pro	Ser	Glu	Gly	Tyr	Arg	Leu		
		180						185					190				
Tyr	Pro	Arg	Ser	Pro	Ser	Ala	Val	Ser	Ala	Ser	Tyr	Glu	Thr	Thr	Leu		
		195				200						205					
Ser	Gln	Glu	Arg	Asp	Ser	Thr	Ile	Phe	Gly	Ile	Arg	Gly	Lys	Lys	Leu		
	210					215					220						
His	Phe	Ser	Ser	Ser	Tyr	Ala	His	Lys	Ala	Ser	Ser	Ile	Ala	Lys	Ser		
225				230					235					240			
Ser	Ser	Phe	Cys	Ser	Met	Glu	Arg	Asp	Glu	Glu	Asp	Ser	Ile	Ile	Val		
			245					250					255				
Ser	Glu	Gly	Ile	Ile	Glu	Glu	Tyr	Leu	Ala	Phe	Asp	His	Ile	Asp	Ile		
		260					265					270					
Glu	Glu	Gly	Phe	His	Gly	Lys	Lys	Ser	Glu	Ala	Ala	Thr	Glu	Lys	Gln		
		275				280						285					
Lys	Leu	Gly	Tyr	Pro	Pro	Ile	Ala	Pro	Phe	Tyr	Cys	Met	Lys	Glu	Asp		
	290					295					300						
Val	Leu	Ala	Tyr	Val	Phe	Asp	Ser	Val	Trp	Cys	Lys	Val	Val	Ser	Cys		
305				310					315					320			
Met	Glu	Gln	Leu	Thr	Arg	Ser	His	Trp	Glu	Gly	Phe	Ala	Ser	Asp	Asp		
			325					330					335				
Glu	Ser	Asn	Val	Ala	Val	Thr	Arg	Pro	Asp	Ser	Glu	Ser	Ser	Cys	Val		
		340				345						350					
Leu	Ser	Glu	Leu	His	Pro	Leu	Val	Leu	Pro	Arg	Val	Pro	Gln	Ser	Lys		
	355					360						365					
Val	Leu	Tyr	Ile	Thr	Ser	Asn	Pro	Met	Ser	Leu	Cys	Gln	Ala	Ser	Arg		

370	375	380
His Gln Pro Asn Val	Asn Asp Leu Leu Val	His Gly Met Pro Leu Gln
385	390	395
Pro Arg Asn Leu Ser	Leu Met Asp Lys Leu	Leu Asp Leu Asp Asp Lys
405	410	415
Leu Leu Met Arg Pro	Gly Ser Ser Thr Ile	Leu Ser Thr Arg Asn Trp
420	425	430
Pro Asn Arg Ala Val	Glu Phe Ser Thr Ser	Ser Leu Ser Tyr Thr Val
435	440	445
Gln Ser Thr Arg Arg	Arg Asn Pro Pro Pro	Arg Thr Leu His Pro Ile
450	455	460
Ser Thr Ser His Ser	Cys Ala Glu Thr Pro	Arg Ser Val Glu Glu Ile
465	470	475
Leu Arg Gly Ala Arg	Val Pro Val Ala Pro	Asp Ser Leu Ser Ser Pro
485	490	495
Ser Pro Thr Pro Leu	Ser Arg Asn Asn Leu	Leu Leu Pro Pro Ile Gly Thr
500	505	510
Ala Glu Val Glu His	Val Ser Thr Val Gly	Pro Gln Arg Gln Met Lys
515	520	525
Pro His Gly Asp Ser	Ser Arg Ala Gln Ser	Ala Val Val Asp Glu Pro
530	535	540
Asn Tyr Gln Gln Pro	Gln Glu Arg Leu Leu	Leu Pro Asp Phe Phe Pro
545	550	555
Arg Pro Asn Thr Thr	Gln Ser Phe Leu Leu	Asp Thr Gln Tyr Arg Arg
565	570	575
Ser Cys Ala Val Glu	Tyr Pro His Gln Ala	Arg Pro Gly Arg Gly Ser
580	585	590
Ala Gly Pro Gln Leu	His Gly Ser Thr Lys	Ser Gln Ser Gly Gly Arg
595	600	605
Pro Val Ser Arg Thr	Arg Gln Gly Pro	
610	615	617

<210> 3677
 <211> 170
 <212> PRT
 <213> Homo sapiens

<400> 3677
Met Arg Leu Gln Gly Ala Ile Phe Val Leu Leu Pro His Leu Gly Pro
1 5 10 15
Ile Leu Val Trp Leu Phe Thr Arg Asp His Met Ser Gly Trp Cys Glu
20 25 30
Gly Pro Arg Met Leu Ser Trp Cys Pro Phe Tyr Lys Val Leu Leu Leu
35 40 45
Val Gln Thr Ala Ile Tyr Ser Val Val Gly Tyr Ala Ser Tyr Leu Val
50 55 60
Trp Lys Asp Leu Gly Gly Gly Leu Gly Trp Pro Leu Ala Leu Pro Leu
65 70 75 80
Gly Leu Tyr Ala Val Gln Leu Thr Ile Ser Trp Thr Val Leu Val Leu
85 90 95
Phe Phe Thr Val His Asn Pro Gly Leu Ala Leu Leu His Leu Leu Leu
100 105 110
Leu Tyr Gly Leu Val Val Ser Thr Ala Leu Ile Trp His Pro Ile Asn
115 120 125
Lys Leu Ala Ala Leu Leu Leu Leu Pro Tyr Leu Ala Trp Leu Thr Val
130 135 140
Thr Ser Ala Leu Thr Tyr His Leu Trp Arg Asp Ser Leu Cys Pro Val
145 150 155 160
His Gln Pro Gln Pro Thr Glu Lys Ser Asp
165 170

<210> 3678

<211> 496

<212> PRT

<213> Homo sapiens

<400> 3678

Arg Gly Lys Ala Glu Phe Phe Leu Ala Met Ala Gly Thr Asn Ala Leu
 1 5 10 15
 Leu Met Leu Glu Asn Phe Ile Asp Gly Lys Phe Leu Pro Cys Ser Ser
 20 25 30
 Tyr Ile Asp Ser Tyr Asp Pro Ser Thr Gly Glu Val Tyr Cys Arg Val
 35 40 45
 Pro Asn Ser Gly Lys Asp Glu Ile Glu Ala Ala Val Lys Ala Ala Arg
 50 55 60
 Glu Ala Phe Pro Ser Trp Ser Ser Arg Ser Pro Gln Glu Arg Ser Arg
 65 70 75 80
 Val Leu Asn Gln Val Ala Asp Leu Leu Glu Gln Ser Leu Glu Glu Phe
 85 90 95
 Ala Gln Ala Glu Ser Lys Asp Gln Gly Lys Thr Leu Ala Leu Ala Arg
 100 105 110
 Thr Met Asp Ile Pro Arg Ser Val Gln Asn Phe Arg Phe Phe Ala Ser
 115 120 125
 Ser Ser Leu His His Thr Ser Glu Cys Thr Gln Met Asp His Leu Gly
 130 135 140
 Cys Met His Tyr Thr Val Arg Ala Pro Val Gly Val Ala Gly Leu Ile
 145 150 155 160
 Ser Pro Trp Asn Leu Pro Leu Tyr Leu Leu Thr Trp Lys Ile Ala Pro
 165 170 175
 Ala Met Ala Ala Gly Asn Thr Val Ile Ala Lys Pro Ser Glu Leu Thr
 180 185 190
 Ser Val Thr Ala Trp Met Leu Cys Lys Leu Leu Asp Lys Ala Gly Val
 195 200 205
 Pro Pro Gly Val Val Asn Ile Val Phe Gly Thr Gly Pro Arg Val Gly
 210 215 220
 Glu Ala Leu Val Ser His Pro Glu Val Pro Leu Ile Ser Phe Thr Gly
 225 230 235 240
 Ser Gln Pro Thr Ala Glu Arg Ile Thr Gln Leu Ser Ala Pro His Cys
 245 250 255
 Lys Lys Leu Ser Leu Glu Leu Gly Gly Lys Asn Pro Ala Ile Ile Phe
 260 265 270
 Glu Asp Ala Asn Leu Asp Glu Cys Ile Pro Ala Thr Val Arg Ser Ser
 275 280 285
 Phe Ala Asn Gln Gly Glu Ile Cys Leu Cys Thr Ser Arg Ile Phe Val
 290 295 300
 Gln Lys Ser Ile Tyr Ser Glu Phe Leu Lys Arg Phe Val Glu Ala Thr
 305 310 315 320
 Arg Lys Trp Lys Val Gly Ile Pro Ser Asp Pro Leu Val Ser Ile Gly
 325 330 335
 Ala Leu Ile Ser Lys Ala His Leu Glu Lys Val Arg Ser Tyr Val Lys
 340 345 350
 Arg Ala Leu Ala Glu Gly Ala Gln Ile Trp Cys Gly Glu Gly Val Asp
 355 360 365
 Lys Leu Ser Leu Pro Ala Arg Asn Gln Ala Gly Tyr Phe Met Leu Pro
 370 375 380
 Thr Val Ile Thr Asp Ile Lys Asp Glu Ser Cys Cys Met Thr Glu Glu
 385 390 395 400
 Ile Phe Gly Pro Val Thr Cys Val Val Pro Phe Asp Ser Glu Glu Glu
 405 410 415
 Val Ile Glu Arg Ala Asn Asn Val Lys Tyr Gly Leu Ala Ala Thr Val
 420 425 430
 Trp Ser Ser Asn Val Gly Arg Val His Arg Val Ala Lys Lys Leu Gln

435		440		445
Ser Gly Leu Val Trp Thr Asn Cys Trp Leu Ile Arg Glu Leu Asn Leu				
450		455		460
Pro Phe Gly Gly Met Lys Ser Ser Gly Ile Gly Arg Glu Gly Ala Lys				
465		470		475
Asp Ser Tyr Asp Phe Phe Thr Glu Ile Lys Thr Ile Thr Val Lys His				
	485		490	495 496

<210> 3679
 <211> 453
 <212> PRT
 <213> Homo sapiens

<400> 3679

Met Ala Gly Thr Lys Pro Tyr Met Glu Ile Gln Thr Thr Ile Arg Glu				
1	5	10	15	
Tyr Tyr Glu His Leu Tyr Ala Asn Lys Leu Glu Asn Leu Glu Glu Met				
	20	25	30	
Asp Lys Phe Leu Asp Thr Tyr Thr Leu Pro Arg Leu Asn Gln Glu Glu				
	35	40	45	
Val Glu Ser Leu Asn Arg Pro Ile Thr Gly Ser Glu Ile Glu Ala Ile				
	50	55	60	
Ile Asn Ser Leu Pro Thr Lys Lys Ile Pro Gly Pro Asp Arg Phe Thr				
65	70	75	80	
Ala Lys Phe Tyr Gln Arg Tyr Lys Glu Glu Leu Ser Asn Leu Ile His				
	85	90	95	
Tyr Leu Gly Leu Ser His His Leu Leu Ala Leu Asn Phe Ile Ile Val				
	100	105	110	
Ser Phe Gly Lys Lys Ser Ala Trp Ser Ser Ala Gln Val Lys Val Thr				
	115	120	125	
Asp Thr Asp Phe Asp Gly Val Glu Val Arg Val Phe Glu Gly Pro Pro				
130	135	140		
Lys Pro Glu Glu Pro Leu Lys Arg Ser Val Val Tyr Ile His Gly Gly				
145	150	155	160	
Gly Trp Ala Leu Ala Ser Ala Lys Ile Arg Tyr Tyr Asp Glu Leu Cys				
	165	170	175	
Thr Ala Met Ala Glu Glu Leu Asn Ala Val Ile Val Ser Ile Glu Tyr				
	180	185	190	
Arg Leu Val Pro Lys Val Tyr Phe Pro Glu Gln Ile His Asp Val Val				
	195	200	205	
Arg Ala Thr Lys Tyr Phe Leu Lys Pro Glu Val Leu Gln Lys Tyr Met				
210	215	220		
Val Asp Pro Gly Arg Ile Cys Ile Ser Gly Asp Ser Ala Gly Gly Asn				
225	230	235	240	
Leu Ala Ala Ala Leu Gly Gln Gln Phe Thr Gln Asp Ala Ser Leu Lys				
	245	250	255	
Asn Lys Leu Lys Leu Gln Ala Leu Ile Tyr Pro Val Leu Gln Ala Leu				
	260	265	270	
Asp Phe Asn Thr Pro Ser Tyr Gln Gln Asn Val Asn Thr Pro Ile Leu				
	275	280	285	
Pro Arg Tyr Val Met Val Lys Tyr Trp Val Asp Tyr Phe Lys Gly Asn				
290	295	300		
Tyr Asp Phe Val Gln Ala Met Ile Val Asn Asn His Thr Ser Leu Asp				
305	310	315	320	
Val Glu Glu Ala Ala Val Arg Ala Arg Leu Asn Trp Thr Ser Leu				
	325	330	335	
Leu Pro Ala Ser Phe Thr Lys Asn Tyr Lys Pro Val Val Gln Thr Thr				
	340	345	350	
Gly Asn Ala Arg Ile Val Gln Glu Leu Pro Gln Leu Leu Asp Ala Arg				

355	360	365
Ser Ala Pro Leu Ile Ala Asp Gln Ala Val Leu Gln Leu Leu Pro Lys		
370	375	380
Thr Tyr Ile Leu Thr Cys Glu His Asp Val Leu Arg Asp Asp Gly Ile		
385	390	395
Met Tyr Ala Lys Arg Leu Glu Ser Ala Gly Val Glu Val Thr Leu Asp		
	405	410
His Phe Glu Asp Gly Phe His Gly Cys Met Ile Phe Thr Ser Trp Pro		
	420	425
Thr Asn Phe Ser Val Gly Ile Arg Thr Arg Asn Ser Tyr Ile Lys Trp		
	435	440
Leu Asp Gln Asn Leu		445
450	453	

<210> 3680
 <211> 632
 <212> PRT
 <213> Homo sapiens

<400> 3680

Arg Ser Trp Gly Ala Pro Trp Phe Trp Arg Met Arg Leu Leu Arg Arg		
1	5	10
Arg His Met Pro Leu Arg Leu Ala Met Val Gly Cys Ala Phe Val Leu		
	20	25
Phe Leu Phe Leu Leu His Arg Asp Val Ser Ser Arg Glu Glu Ala Thr		
	35	40
Glu Lys Pro Trp Leu Lys Ser Leu Val Ser Arg Lys Asp His Val Leu		
	50	55
Asp Leu Met Leu Glu Ala Met Asn Asn Leu Arg Asp Ser Met Pro Lys		
	65	70
Leu Gln Ile Arg Ala Pro Glu Ala Gln Gln Thr Leu Phe Ser Ile Asn		
	85	90
Gln Ser Cys Leu Pro Gly Phe Tyr Thr Pro Ala Glu Leu Lys Pro Phe		
	100	105
Trp Glu Arg Pro Pro Gln Asp Pro Asn Ala Pro Gly Ala Asp Gly Lys		
	115	120
Ala Phe Gln Lys Ser Lys Trp Thr Pro Leu Glu Thr Gln Glu Lys Glu		
	130	135
Glu Gly Tyr Lys Lys His Cys Phe Asn Ala Phe Ala Ser Asp Arg Ile		
	145	150
Ser Leu Gln Arg Ser Leu Gly Pro Asp Thr Arg Pro Pro Glu Cys Val		
	165	170
Asp Gln Lys Phe Arg Arg Cys Pro Pro Leu Ala Thr Thr Ser Val Ile		
	180	185
Ile Val Phe His Asn Glu Ala Trp Ser Thr Leu Leu Arg Thr Val Tyr		
	195	200
Ser Val Leu His Thr Thr Pro Ala Ile Leu Leu Lys Glu Ile Ile Leu		
	210	215
Val Asp Asp Ala Ser Thr Glu Glu His Leu Lys Glu Lys Leu Glu Gln		
	225	230
Tyr Val Lys Gln Leu Gln Val Val Arg Val Val Arg Gln Glu Glu Arg		
	245	250
Lys Gly Leu Ile Thr Ala Arg Leu Leu Gly Ala Ser Val Ala Gln Ala		
	260	265
Glu Val Leu Thr Phe Leu Asp Ala His Cys Glu Cys Phe His Gly Trp		
	275	280
Leu Glu Pro Leu Leu Ala Arg Ile Ala Glu Asp Lys Thr Val Val Val		
	290	295
Ser Pro Asp Ile Val Thr Ile Asp Leu Asn Thr Phe Glu Phe Ala Lys		
	305	310
Pro Val Gln Arg Gly Arg Val His Ser Arg Gly Asn Phe Asp Trp Ser		
	315	320

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<210> 3681
<211> 370
<212> PRT
<213> Homo sapiens
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5443

115	120	125
Thr Leu Arg Thr Ala Ala Lys Glu Met Glu Glu Lys Ile Ser Asn Leu		
130	135	140
Lys Glu His Leu Ala Ser Lys Glu Val Glu Val Ala Lys Leu Glu Lys		
145	150	155
Gln Leu Leu Glu Glu Lys Ala Ala Met Thr Asp Ala Met Val Pro Arg		
165	170	175
Ser Ser Tyr Glu Lys Leu Gln Ser Ser Leu Glu Ser Glu Val Ser Val		
180	185	190
Leu Ala Ser Lys Leu Lys Glu Ser Val Lys Glu Lys Glu Lys Val His		
195	200	205
Ser Glu Val Val Gln Ile Arg Ser Glu Val Ser Gln Val Lys Arg Glu		
210	215	220
Lys Glu Asn Ile Gln Thr Leu Leu Lys Ser Lys Glu Gln Glu Val Asn		
225	230	235
Glu Leu Leu Gln Lys Phe Gln Gln Ala Gln Glu Glu Leu Ala Glu Met		
245	250	255
Lys Arg Tyr Ser Glu Ser Ser Ser Lys Leu Glu Glu Asp Lys Asp Lys		
260	265	270
Lys Ile Asn Glu Met Ser Lys Glu Val Thr Lys Leu Lys Glu Ala Leu		
275	280	285
Asn Ser Leu Ser Gln Leu Ser Tyr Ser Thr Ser Ser Ser Lys Arg Gln		
290	295	300
Ser Gln Gln Leu Glu Ala Leu Gln Gln Gln Val Lys Gln Leu Gln Asn		
305	310	315
Gln Leu Ala Glu Cys Lys Lys Gln His Gln Glu Val Ile Ser Val Tyr		
325	330	335
Arg Met His Leu Leu Tyr Ala Val Gln Gly Gln Met Asp Glu Asp Val		
340	345	350
Gln Lys Val Leu Lys Gln Ile Leu Thr Met Cys Lys Asn Gln Ser Gln		
355	360	365
Lys Lys		
370		

<210> 3682

<211> 193

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(192)

<223> Xaa = any amino acid or nothing

<400> 3682

Ala Gln Ala Leu Thr Ala Gly Arg Gln Leu Ala Leu Ala Ala Pro Phe	
1 5 10 15	
Ile Ala Pro Ile Ser Pro Ile Ser Leu Pro Arg Leu Asn Pro Pro Ser	
20 25 30	
Gln Ser Trp Asn Ser Thr Pro Phe Phe Lys Val Lys Leu Pro Pro Gln	
35 40 45	
Lys Glu Val Ile Thr Ser Asp Glu Leu Met Ala His Leu Gly Asn Cys	
50 55 60	
Leu Leu Ser Ile Lys Pro Gln Glu Lys Ser Glu Gly Leu Gln Leu Asn	
65 70 75 80	
Phe Gln Gln Asn Val Asp Asp Ala Met Thr Val Leu Pro Lys Leu Ala	
85 90 95	
Thr Gly Leu Asp Val Asn Val Arg Phe Thr Gly Val Ser Asp Phe Glu	
100 105 110	
Tyr Thr Pro Glu Cys Ser Val Phe Asp Leu Leu Gly Ile Pro Leu Tyr	
115 120 125	
His Gly Trp Leu Val Asp Pro Gln Gln Ser Pro Glu Ala Val Arg Ala	

130	135	140
Val Gly Lys Leu Ser Tyr	Asn Gln Leu Val Gly Glu Asp His His Leu	
145	150	155
Gln Thr Leu Gln Xaa His	Gln Pro Arg Asp Arg Lys Pro Asp Cys Arg	160
	165	170
Ala Val Pro Gly Asp His Arg Gly Pro Ser Asp Leu Pro Arg Thr Val	185	190
180		192

<210> 3683

<211> 313

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(312)

<223> Xaa = any amino acid or nothing

<400> 3683

Leu Glu Ile Lys Gln Glu Glu Lys Phe Val Gly Gln Cys Ile Lys Glu	
1 5 10 15	
Glu Leu Met His Gly Glu Cys Val Lys Glu Glu Lys Asp Phe Leu Lys	
20 25 30	
Lys Glu Ile Val Asp Asp Thr Lys Val Lys Glu Glu Pro Pro Ile Asn	
35 40 45	
His Pro Val Gly Cys Lys Arg Lys Leu Ala Met Ser Arg Cys Glu Thr	
50 55 60	
Cys Gly Thr Glu Glu Ala Lys Tyr Arg Cys Pro Arg Cys Met Arg Tyr	
65 70 75 80	
Ser Cys Ser Leu Pro Cys Val Lys Lys His Lys Ala Glu Leu Thr Cys	
85 90 95	
Asn Gly Val Arg Asp Lys Thr Ala Tyr Ile Ser Ile Gln Gln Phe Thr	
100 105 110	
Glu Met Asn Leu Leu Ser Asp Tyr Arg Phe Leu Glu Asp Val Ala Arg	
115 120 125	
Thr Ala Asp His Ile Ser Arg Asp Ala Phe Leu Lys Arg Pro Ile Ser	
130 135 140	
Asn Lys Tyr Met Tyr Phe Met Lys Asn Arg Ala Arg Arg Gln Gly Ile	
145 150 155 160	
Asn Leu Lys Leu Leu Pro Asn Gly Phe Thr Lys Arg Lys Glu Asn Ser	
165 170 175	
Thr Phe Phe Asp Lys Lys Lys Gln Gln Phe Cys Trp His Val Lys Leu	
180 185 190	
Gln Phe Pro Gln Ser Gln Ala Ser Thr Xaa Lys Lys Arg Val Pro Asp	
195 200 205	
Asp Lys Thr Ile Asn Glu Ile Leu Lys Pro Tyr Ile Asp Pro Glu Lys	
210 215 220	
Ser Asp Pro Val Ile Arg Gln Arg Leu Lys Ala Tyr Ile Arg Ser Gln	
225 230 235 240	
Thr Gly Val Gln Ile Leu Met Lys Ile Glu Tyr Met Gln Gln Asn Leu	
245 250 255	
Val Arg Tyr Tyr Glu Leu Asp Pro Tyr Lys Ser Leu Leu Asp Asn Leu	
260 265 270	
Arg Asn Lys Val Ile Ile Glu Tyr Pro Thr Leu His Val Val Leu Lys	
275 280 285	
Gly Ser Asn Asn Asp Met Lys Val Leu His Gln Val Lys Ser Glu Ser	
290 295 300	
Thr Lys Asn Val Gly Asn Glu Asn	
305 310 312	

<210> 3684

<211> 479

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(472)

<223> Xaa = any amino acid or nothing

<400> 3684

```

Ser Leu Gln Glu Asn Val Gln Glu Lys Arg Val Arg Val Cys Pro Gly
 1          5          10          15
Leu Gly Gly Leu Leu Pro Asn Gly Thr Pro Ser Ile Thr Ala Ala Ala
 20          25          30
Ala Pro Gln Val Leu Trp Arg His Val Gln Pro Gly Cys Ser His His
 35          40          45
Leu His Ala Cys Val Ile Arg Ala Ala Cys Arg Ala Gly Glu Gly His
 50          55          60
Ala Asp Arg His Ala Gly Pro Pro Glu Thr Pro Val Thr Leu Pro Ser
 65          70          75          80
Ser Trp Pro Trp Ser Ser Pro Trp Glu Arg Gln Cys Pro Met His Leu
 85          90          95
Xaa Ala Pro Gly His Ala Phe Arg Pro Val Pro Thr Glu His Arg Arg
 100         105         110
Gly Trp Ala Ala Leu Gly His His Arg Ala Ala Ala Gly Pro Leu Arg
 115         120         125
Glu Pro Ala Ser Gly Ser Gln Pro Ala Pro Ala Ser Cys Xaa Pro Glu
 130         135         140
Cys His His Gly Cys Pro Glu Gln Thr Arg Gln Cys Gln Asp Leu Leu
 145         150         155         160
Arg Glu Ala Val Val Ala Pro Glu Gln Arg Gly Xaa Pro Cys Ala His
 165         170         175
Leu Gln Thr Xaa Ala Thr Ala Thr Thr Leu Cys Pro Gln Val Pro Ala
 180         185         190
Gly Arg Val Trp Gln Pro Gly His Ser Cys His Leu Leu Pro His Arg
 195         200         205
His Asp Gly Ser His Xaa His His Cys Ala Ala His Arg Arg Pro Val
 210         215         220
Thr Arg Arg Gln Ala Ala His Gly Val Pro Leu Pro Asp Ala Cys Tyr
 225         230         235         240
Ser Pro His His Thr Leu Pro Ala Ala Pro Pro Pro Ala Thr Arg Pro
 245         250         255
Ala Gly His Thr Ala Thr His Pro Glu Xaa Gly Gly Asp Leu Thr Pro
 260         265         270
Val Pro Asp Gly Pro His Asp Cys Pro Arg Asp Val Gln Gly Ile Pro
 275         280         285
Gly Ala Gly Gly Gly Ser Gln Leu Ala Pro Cys Cys Pro Pro Phe Pro
 290         295         300
Ala Ala Pro Val Ser Val Gln Gly Thr Gln Gly Leu Gly Pro Lys Asn
 305         310         315         320
Val Leu His Xaa Gln Trp Glu Gly Ile Arg Trp Gln Lys Glu Pro Glu
 325         330         335
Pro Gly Pro Pro Pro Glu Val Glu Leu Lys Arg Gly Ala Lys Cys Arg
 340         345         350
Ile Gly Asp His Gly Leu Gly Ala Val Leu Gly Gln Gly Glu Tyr Ala
 355         360         365
Ser Xaa Ser Pro Ser Ile Pro Trp Xaa Ala Ser Ser Ser Ala Cys Pro
 370         375         380
Pro Leu His Pro Thr Pro Thr Val Tyr Thr Gln Ser Pro Ala Ala Ala
 385         390         395         400
Pro Gly Trp Thr Arg Pro Pro Ser Pro Pro Pro Gly Leu Tyr Pro

```



```

      405      410      415
Gly Pro Pro Ala Ser His Ala Pro Gly Val Arg Gly Gly Ile Ser His
      420      425      430
Gln Leu Tyr Ser Leu Pro Xaa Leu Cys Arg Glu Cys Cys Ser Cys Pro
      435      440      445
Pro Pro Pro Pro Ala His Gly Gly Arg Cys Pro Ser Leu Leu Pro Pro
      450      455      460
Glu Ala Leu Ala Lys Leu Leu Leu
465      470      472

```

<210> 3685

<211> 114

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(112)

<223> Xaa = any amino acid or nothing

<400> 3685

```

Ala Trp Val Leu Gln Cys Lys Ile Asn Thr Glu Leu Gln Thr Glu Val
 1          5          10          15
Val Met Leu Lys Ser Met Val Leu Trp Leu Gly Glu Gln Val Gln Ser
      20          25          30
Leu Gln Leu Gln Gln Gln Leu His Cys His Phe Asn His Thr His Ile
      35          40          45
Cys Val Thr Asn Leu Glu Tyr Asn Lys Glu Tyr Pro Trp Asp Leu Val
      50          55          60
Lys Ala His Leu Gln Gly Ala Ser Thr Ser Asn Ile Thr Phe Asp Ile
      65          70          75          80
Gly Glu Leu Gln Lys Lys Ile Leu Asp Leu Asn Lys Gln Thr Gln Glu
      85          90          95
Phe Gln Pro Ser Leu Xaa Ala Trp Thr Glu Phe Gln Gln Gly Leu Glu
      100          105          110          112

```

<210> 3686

<211> 248

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(247)

<223> Xaa = any amino acid or nothing

<400> 3686

```

Val Ser Asp Val Val Lys Asn Gln Leu Val Glu Val Gln Cys Arg Gln
 1          5          10          15
Asp Gly Cys Asp Ala Val Glu Asn Val His Gln Met Phe Met Phe Asn
      20          25          30
Trp Phe Thr Asp Cys Leu Trp Thr Leu Phe Leu Ser Asn Tyr Gln Pro
      35          40          45
Ser Val Glu Ser Ser Ser Pro Gly Gly Ser Ala Thr Ser Asp Asp His
      50          55          60
Glu Phe Asp Pro Ser Ala Asp Met Leu Val His Asp Phe Asp Asp Glu
      65          70          75          80
Arg Thr Leu Glu Glu Glu Glu Met Met Glu Gly Glu Thr Asn Phe Ser

```

				85					90					95			
Ser	Glu	Ile	Glu	Asp	Leu	Ala	Arg	Glu	Gly	Asp	Met	Pro	Ile	His	Glu		
			100					105					110				
Leu	Leu	Ser	Leu	Tyr	Gly	Tyr	Gly	Ser	Thr	Val	Arg	Leu	Pro	Glu	Glu		
		115					120					125					
Asp	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Glu	Gly	Glu	Asp	Asp	Glu	Asp			
	130					135				140							
Ala	Asp	Asn	Asp	Asp	Asn	Ser	Gly	Cys	Ser	Gly	Glu	Asn	Lys	Glu	Glu		
145					150				155						160		
Asn	Ile	Lys	Asp	Ser	Ser	Gly	Gln	Glu	Asp	Glu	Thr	Gln	Ser	Ser	Asn		
			165					170					175				
Asp	Asp	Pro	Ser	Gln	Ser	Val	Ala	Ser	Gln	Asp	Ala	Gln	Glu	Ile	Ile		
		180						185				190					
Arg	Pro	Arg	Arg	Cys	Lys	Tyr	Phe	Asp	Thr	Asn	Ser	Glu	Val	Glu	Glu		
		195					200					205					
Glu	Ser	Glu	Glu	Asp	Glu	Asp	Tyr	Ile	Pro	Ser	Ile	Ile	Ser	Phe	Phe		
	210				215						220						
Gln	Ser	Ser	Asp	Gly	Ile	Xaa	Ser	Ser	Ser	Ser	Ser	Glu	Asp	Trp	Lys		
225					230					235					240		
Lys	Glu	Ile	Met	Val	Gly	Ser											
			245		247												

<210> 3687
 <211> 395
 <212> PRT
 <213> Homo sapiens

<400> 3687

Pro	Val	Leu	Val	Thr	Ser	Leu	Arg	Met	Arg	Glu	Ala	Asp	Thr	Leu	Arg		
1				5					10					15			
Pro	Pro	Gln	Leu	Met	Glu	Val	Ser	Ala	Asp	Ile	Ile	Ser	Thr	Val	Glu		
		20						25					30				
Phe	Asn	His	Thr	Gly	Glu	Leu	Leu	Ala	Thr	Gly	Asp	Lys	Gly	Gly	Arg		
	35					40					45						
Val	Val	Ile	Phe	Gln	Arg	Glu	Pro	Glu	Ser	Lys	Asn	Ala	Pro	His	Ser		
	50					55					60						
Gln	Gly	Glu	Tyr	Asp	Val	Tyr	Ser	Thr	Phe	Gln	Ser	His	Glu	Pro	Glu		
65					70					75					80		
Phe	Asp	Tyr	Leu	Lys	Ser	Leu	Glu	Ile	Glu	Glu	Lys	Ile	Asn	Lys	Ile		
			85					90					95				
Lys	Trp	Leu	Pro	Gln	Gln	Asn	Ala	Ala	His	Ser	Leu	Leu	Ser	Thr	Asn		
		100					105						110				
Asp	Lys	Thr	Ile	Lys	Leu	Trp	Lys	Ile	Thr	Glu	Arg	Asp	Lys	Arg	Pro		
	115						120					125					
Glu	Gly	Tyr	Asn	Leu	Lys	Asp	Glu	Glu	Gly	Lys	Leu	Lys	Asp	Leu	Ser		
	130					135					140						
Thr	Val	Thr	Ser	Leu	Gln	Val	Pro	Val	Leu	Lys	Pro	Met	Asp	Leu	Met		
145					150					155					160		
Val	Glu	Val	Ser	Pro	Arg	Arg	Ile	Phe	Ala	Asn	Gly	His	Thr	Tyr	His		
			165						170					175			
Ile	Asn	Ser	Ile	Ser	Val	Asn	Ser	Asp	Cys	Glu	Thr	Tyr	Met	Ser	Ala		
	180							185					190				
Asp	Asp	Leu	Arg	Ile	Asn	Leu	Trp	His	Leu	Ala	Ile	Thr	Asp	Arg	Ser		
	195						200					205					
Phe	Thr	Pro	Asn	Ile	Val	Asp	Ile	Lys	Pro	Ala	Asn	Met	Glu	Asp	Leu		
	210					215					220						
Thr	Glu	Val	Ile	Thr	Ala	Ser	Glu	Phe	His	Pro	His	His	Cys	Asn	Leu		
225					230					235					240		
Phe	Val	Tyr	Ser	Ser	Ser	Lys	Gly	Ser	Leu	Arg	Leu	Cys	Asp	Met	Arg		
			245						250				255				
Ala	Ala	Ala	Leu	Cys	Asp	Lys	His	Ser	Lys	Leu	Phe	Glu	Glu	Pro	Glu		

	260		265		270										
Asp	Pro	Ser	Asn	Arg	Ser	Phe	Phe	Ser	Glu	Ile	Ile	Ser	Ser	Val	Ser
	275						280					285			
Asp	Val	Lys	Phe	Ser	His	Ser	Asp	Arg	Tyr	Met	Leu	Thr	Arg	Asp	Tyr
	290						295				300				
Leu	Thr	Val	Lys	Val	Trp	Asp	Leu	Asn	Met	Glu	Ala	Arg	Pro	Ile	Glu
305					310					315					320
Thr	Tyr	Gln	Val	His	Asp	Tyr	Leu	Arg	Ser	Lys	Leu	Cys	Ser	Leu	Tyr
				325					330					335	
Glu	Asn	Asp	Cys	Ile	Phe	Asp	Lys	Phe	Glu	Cys	Ala	Trp	Asn	Gly	Ser
			340					345					350		
Asp	Arg	Ile	Ile	Met	Thr	Gly	Ala	Tyr	Asn	Asn	Phe	Phe	Arg	Met	Phe
	355						360					365			
Asp	Arg	Asn	Thr	Lys	Arg	Asp	Val	Thr	Leu	Glu	Ala	Ser	Arg	Gly	Ser
	370					375						380			
Ser	Lys	Pro	Arg	Ala	Val	Leu									
385					390	391									

<210> 3688

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3688

Lys	Lys	Val	Pro	Gly	Arg	Leu	Ser	Glu	Met	Ser	Phe	Ser	Leu	Asn	Phe
1				5				10						15	
Thr	Leu	Pro	Ala	Asn	Thr	Thr	Ser	Ser	Pro	Val	Thr	Asp	Cys	Gly	Pro
			20					25					30		
Ser	Leu	Gly	Leu	Ala	Ala	Gly	Ile	Pro	Leu	Leu	Val	Ala	Thr	Ala	Leu
		35					40					45			
Leu	Val	Ala	Leu	Leu	Phe	Thr	Leu	Ile	His	Arg	Arg	Arg	Ser	Ser	Ile
	50					55					60				
Glu	Ala	Met	Glu	Glu	Ser	Asp	Arg	Pro	Cys	Glu	Ile	Ser	Glu	Ile	Asp
65					70				75					80	
Asp	Asn	Pro	Lys	Ile	Ser	Glu	Asn	Pro	Arg	Arg	Ser	Pro	Thr	His	Glu
				85				90						95	
Lys	Asn	Thr	Met	Gly	Ala	Gln	Glu	Ala	His	Ile	Tyr	Val	Lys	Thr	Val
			100					105					110		
Ala	Gly	Ser	Glu	Glu	Pro	Val	His	Asp	Arg	Tyr	Arg	Pro	Thr	Ile	Glu
	115						120					125			
Met	Glu	Arg	Arg	Arg											
130				133											

<210> 3689

<211> 64

<212> PRT

<213> Homo sapiens

<400> 3689

Gly	Arg	Val	Leu	Val	His	Cys	Ala	Met	Gly	Val	Ser	Arg	Ser	Ala	Thr
1				5				10						15	
Leu	Val	Leu	Ala	Phe	Leu	Met	Ile	Tyr	Glu	Asn	Met	Thr	Leu	Val	Glu
			20					25					30		
Ala	Ile	Pro	Asp	Gly	Ala	Gly	Pro	Pro	Gln	Ile	Ser	Ala	Leu	Thr	Gln
		35					40					45			
Ala	Phe	Val	Arg	Gln	Leu	Gln	Val	Leu	Asp	Asn	Arg	Leu	Gly	Arg	Glu
	50					55					60			64	

<210> 3690
 <211> 31
 <212> PRT
 <213> Homo sapiens

<400> 3690
 Met Gly Ala His Leu Val Arg Arg Tyr Leu Gly Asp Ala Ser Val Glu
 1 5 10 15
 Pro Asp Pro Leu Gln Met Pro Thr Phe Pro Pro Asp Tyr Gly Phe
 20 25 30 31

<210> 3691
 <211> 31
 <212> PRT
 <213> Homo sapiens

<400> 3691
 Met Gly Ala His Leu Val Arg Arg Tyr Leu Gly Asp Ala Ser Val Glu
 1 5 10 15
 Pro Asp Pro Leu Gln Met Pro Thr Phe Pro Pro Asp Tyr Gly Phe
 20 25 30 31

<210> 3692
 <211> 943
 <212> PRT
 <213> Homo sapiens

<400> 3692
 Pro Leu Val Arg Arg Leu Leu Arg Gln Thr Leu Arg Arg Val Gly Gly
 1 5 10 15
 Ala Arg Ala Val Arg Glu Ala Val Met Arg Ala Val Leu Thr Trp Arg
 20 25 30
 Asp Lys Ala Glu His Cys Ile Asn Asp Ile Ala Phe Lys Pro Asp Gly
 35 40 45
 Thr Gln Leu Ile Leu Ala Ala Gly Ser Arg Leu Leu Val Tyr Asp Thr
 50 55 60
 Ser Asp Gly Thr Leu Leu Gln Pro Leu Lys Gly His Lys Asp Thr Val
 65 70 75 80
 Tyr Cys Val Ala Tyr Ala Lys Asp Gly Lys Arg Phe Ala Ser Gly Ser
 85 90 95
 Ala Asp Lys Ser Val Ile Ile Trp Thr Ser Lys Leu Glu Gly Ile Leu
 100 105 110
 Lys Tyr Thr His Asn Asp Ala Ile Gln Cys Val Ser Tyr Asn Pro Ile
 115 120 125
 Thr His Gln Leu Ala Ser Cys Ser Ser Ser Asp Phe Gly Leu Trp Ser
 130 135 140
 Pro Glu Gln Lys Ser Val Ser Lys His Lys Ser Ser Ser Lys Ile Ile
 145 150 155 160
 Cys Cys Ser Trp Thr Asn Asp Gly Gln Tyr Leu Ala Leu Gly Met Phe
 165 170 175
 Asn Gly Ile Ile Ser Ile Arg Asn Lys Asn Gly Glu Glu Lys Val Lys
 180 185 190
 Ile Glu Arg Pro Gly Gly Ser Leu Ser Pro Ile Trp Ser Ile Cys Trp

195	200	205
Asn Pro Ser Ser Arg Trp Glu Ser Phe Trp Met Asn Arg Glu Asn Glu		
210	215	220
Asp Ala Glu Asp Val Ile Val Asn Arg Tyr Ile Gln Glu Ile Pro Ser		
225	230	235
Thr Leu Lys Ser Ala Val Tyr Ser Ser Gln Gly Ser Glu Ala Glu Glu		240
	245	250
Glu Glu Pro Glu Glu Glu Asp Asp Ser Pro Arg Asp Asp Asn Leu Glu		255
	260	265
Glu Arg Asn Asp Ile Leu Ala Val Ala Asp Trp Gly Gln Lys Val Ser		270
	275	280
Phe Tyr Gln Leu Ser Gly Lys Gln Ile Gly Lys Asp Arg Ala Leu Asn		285
	290	295
Phe Asp Pro Cys Cys Ile Ser Tyr Phe Thr Lys Gly Glu Tyr Ile Leu		300
305	310	315
Leu Gly Gly Ser Asp Lys Gln Val Ser Leu Phe Thr Lys Asp Gly Val		320
	325	330
Arg Leu Gly Thr Val Gly Glu Gln Asn Ser Trp Val Trp Thr Gly Gln		335
	340	345
Ala Lys Pro Asp Ser Asn Tyr Val Val Gly Gly Cys Gln Asp Gly Thr		350
	355	360
Ile Ser Phe Tyr Gln Leu Ile Phe Ser Thr Val His Gly Leu Tyr Lys		365
	370	375
Asp Arg Tyr Ala Tyr Arg Asp Ser Met Thr Asp Val Ile Val Gln His		380
385	390	395
Leu Ile Thr Glu Gln Lys Val Arg Ile Lys Cys Lys Glu Leu Val Lys		400
	405	410
Lys Ile Ala Ile Tyr Arg Asn Arg Leu Ala Ile Gln Leu Pro Glu Lys		415
	420	425
Ile Leu Ile Tyr Glu Leu Tyr Ser Glu Asp Leu Ser Asp Met His Tyr		430
	435	440
Arg Val Lys Glu Lys Ile Ile Lys Lys Phe Glu Cys Asn Leu Leu Val		445
	450	455
Val Cys Ala Asn His Ile Ile Leu Cys Gln Glu Lys Arg Leu Gln Cys		460
465	470	475
Leu Ser Phe Ser Gly Val Lys Glu Arg Glu Trp Gln Met Glu Ser Leu		480
	485	490
Ile Arg Tyr Ile Lys Val Ile Gly Gly Pro Pro Gly Arg Glu Gly Leu		495
	500	505
Leu Val Gly Leu Lys Asn Gly Gln Ile Leu Lys Ile Phe Val Asp Asn		510
	515	520
Leu Phe Ala Ile Val Leu Leu Lys Gln Ala Thr Ala Val Arg Cys Leu		525
	530	535
Asp Met Ser Ala Ser Arg Lys Lys Leu Ala Val Val Asp Glu Asn Asp		540
545	550	555
Thr Cys Leu Val Tyr Asp Ile Asp Thr Lys Glu Leu Leu Phe Gln Glu		560
	565	570
Pro Asn Ala Asn Ser Val Ala Trp Asn Thr Gln Cys Glu Asp Met Leu		575
	580	585
Cys Phe Ser Gly Gly Gly Tyr Leu Asn Ile Lys Ala Ser Thr Phe Pro		590
	595	600
Val His Arg Gln Lys Leu Gln Gly Phe Val Val Gly Tyr Asn Gly Ser		605
	610	615
Lys Ile Phe Cys Leu His Val Phe Ser Ile Ser Ala Val Glu Val Pro		620
625	630	635
Gln Ser Ala Pro Met Tyr Gln Tyr Leu Asp Arg Lys Leu Phe Lys Glu		640
	645	650
Ala Tyr Gln Ile Ala Cys Leu Gly Val Thr Asp Thr Asp Trp Arg Glu		655
	660	665
Leu Ala Met Glu Ala Leu Glu Gly Leu Asp Phe Glu Thr Ala Lys Lys		670
	675	680
Glu Arg Lys Lys Arg Gly Glu Thr Asn Asn Asp Leu Phe Leu Ala Asp		685
690	695	700
Val Phe Ser Tyr Gln Gly Lys Phe His Glu Ala Ala Lys Leu Tyr Lys		

705		710		715		720
Arg Ser Gly His	Glu Asn Leu Ala Leu	Glu Met Tyr Thr	Asp Leu Cys			
	725		730		735	
Met Phe Glu Tyr	Ala Lys Asp Phe Leu	Gly Ser Gly Asp	Pro Lys Glu			
	740		745		750	
Thr Lys Met Leu	Ile Thr Lys Gln Ala	Asp Trp Ala Arg	Asn Ile Lys			
	755		760		765	
Glu Pro Lys Ala	Ala Val Glu Met Tyr	Ile Ser Ala Gly	Glu His Val			
	770		775		780	
Lys Ala Ile Glu	Ile Cys Gly Asp His	Gly Trp Val Asp	Met Leu Ile			
785		790		795		800
Asp Ile Ala Arg	Lys Leu Asp Lys Ala	Glu Arg Glu Pro	Leu Leu Leu			
	805		810		815	
Cys Ala Thr Tyr	Leu Lys Lys Leu	Asp Ser Pro Gly	Tyr Ala Ala Glu			
	820		825		830	
Thr Tyr Leu Lys	Met Gly Asp Leu	Lys Ser Leu Val	Gln Leu His Val			
	835		840		845	
Glu Thr Gln Arg	Trp Asp Glu Ala	Phe Ala Leu Gly	Glu Lys His Pro			
	850		855		860	
Glu Phe Lys Asp	Asp Ile Tyr Met Pro	Tyr Ala Gln Trp	Leu Ala Glu			
865		870		875		880
Asn Asp Arg Phe	Glu Glu Ala Gln	Lys Ala Phe His	Lys Ala Gly Arg			
	885		890		895	
Gln Arg Glu Ala	Val Gln Val Leu	Glu Gln Leu Thr	Asn Asn Ala Val			
	900		905		910	
Ala Glu Ser Arg	Phe Asn Asp Ala	Ala Tyr Tyr Tyr	Trp Met Leu Ser			
	915		920		925	
Met Gln Cys Leu	Asp Ile Ala Gln	Asp Pro Ala Gln	Lys Asp			
	930		935		940	942

<210> 3693

<211> 366

<212> PRT

<213> Homo sapiens

<400> 3693

Ser Ser Phe Pro	Thr Cys Met Arg	Thr Val Phe His	Ser Asn Thr Ser
1	5	10	15
Val Ser Ser Leu	Leu His Arg Pro	Gly His Val Thr	Pro Gln Leu Thr
	20	25	30
Ile His Gly Gly	Trp Arg His His	Arg Asp His Thr	Ala Ile Asp Glu
	35	40	45
Trp Asp Phe Asn	Pro Ser Lys Phe	Leu Ile Tyr Thr	Cys Leu Leu Leu
	50	55	60
Phe Ser Val Leu	Leu Pro Leu Arg	Leu Asp Gly Ile	Ile Gln Trp Ser
	65	70	75
Tyr Trp Ala Val	Phe Ala Pro Ile	Trp Leu Trp Lys	Leu Leu Val Val
	85	90	95
Ala Gly Ala Ser	Val Gly Ala Gly	Val Trp Ala Arg	Asn Pro Arg Tyr
	100	105	110
Arg Thr Glu Gly	Glu Ala Cys Val	Glu Phe Lys Ala	Met Leu Ile Ala
	115	120	125
Val Gly Ile His	Leu Leu Leu Leu	Met Phe Glu Val	Leu Val Cys Asp
	130	135	140
Arg Val Glu Arg	Gly Thr His Phe	Trp Leu Leu Val	Phe Met Pro Leu
	145	150	155
Phe Phe Val Ser	Pro Val Ser Val	Ala Ala Cys Val	Trp Gly Phe Arg
	165	170	175
His Asp Arg Ser	Leu Glu Leu Glu	Ile Leu Cys Ser	Val Asn Ile Leu
	180	185	190
Gln Phe Ile Phe	Ile Ala Leu Lys	Leu Asp Arg Ile	Ile His Trp Pro

195	200	205
Trp Leu Val Val Phe Val	Pro Leu Trp Ile Leu	Met Ser Phe Leu Cys
210	215	220
Leu Val Val Leu Tyr Tyr	Ile Val Trp Ser Leu	Leu Phe Leu Arg Ser
225	230	235
Leu Asp Val Val Ala Glu	Gln Arg Arg Thr His	Val Thr Met Ala Ile
245	250	255
Ser Trp Ile Thr Ile Val	Val Pro Leu Leu Thr	Phe Glu Val Leu Leu
260	265	270
Val His Arg Leu Asp Gly	His Asn Thr Phe Ser	Tyr Val Ser Ile Phe
275	280	285
Val Pro Leu Trp Leu Ser	Leu Leu Thr Leu Met	Ala Thr Thr Phe Arg
290	295	300
Arg Lys Gly Gly Asn His	Trp Trp Phe Ala Ile	Arg Arg Asp Phe Cys
305	310	315
Gln Asp Gln Leu Pro Gln	Pro Thr Gly Lys Pro	Pro Pro Pro Pro Leu
325	330	335
Thr Asp His His Gly Glu	Lys Ala Leu Pro Leu	Gln Asn Lys Asp Arg
340	345	350
Gly Ser Trp Pro Ala Ser	Arg Gly Ser Pro Arg	Leu Leu
355	360	365

<210> 3694

<211> 93

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(93)

<223> Xaa = any amino acid or nothing

<400> 3694

Pro Arg Ser Leu Ile Asp Tyr Lys Ser Tyr Met Asp Thr Lys Leu Leu
1 5 10 15
Val Ala Arg Phe Leu Glu Gln Ser Ser Cys Thr Met Thr Pro Asp Ile
20 25 30
His Glu Leu Val Glu Asn Ile Lys Ser Val Leu Lys Ser Asp Glu Glu
35 40 45
His Met Glu Glu Ala Ile Thr Ser Ala Ser Phe Leu Glu Gln Ile Met
50 55 60
Ala His Ser Xaa Gln His Ile Arg Ala His Lys Leu Pro Xaa Glu Thr
65 70 75 80
Ala Gly Leu Xaa Thr Ser Glu Leu Arg Xaa Leu Thr Pro
85 90 93

<210> 3695

<211> 93

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(93)

<223> Xaa = any amino acid or nothing

<400> 3695

Pro Arg Ser Leu Ile Asp Tyr Lys Ser Tyr Met Asp Thr Lys Leu Leu
1 5 10 15
Val Ala Arg Phe Leu Glu Gln Ser Ser Cys Thr Met Thr Pro Asp Ile

	20		25		30										
His	Glu	Leu	Val	Glu	Asn	Ile	Lys	Ser	Val	Leu	Lys	Ser	Asp	Glu	Glu
	35		40		45										
His	Met	Glu	Glu	Ala	Ile	Thr	Ser	Ala	Ser	Phe	Leu	Glu	Gln	Ile	Met
	50		55		60										
Ala	His	Ser	Xaa	Gln	His	Ile	Arg	Ala	His	Lys	Leu	Pro	Xaa	Glu	Thr
	65		70		75										80
Ala	Gly	Leu	Xaa	Thr	Ser	Glu	Leu	Arg	Xaa	Leu	Thr	Pro			
			85						90				93		

<210> 3696
 <211> 93
 <212> PRT
 <213> Homo sapiens

<400> 3696

Leu	Ser	Ala	Ala	Leu	Trp	Glu	Glu	Pro	Ile	Leu	Ser	Leu	Trp	Ser	Glu
1				5				10						15	
Thr	Lys	Glu	Leu	Thr	Asn	Arg	Gly	Lys	Met	Asn	Tyr	Pro	Gln	Ile	Gly
			20				25						30		
Pro	His	Arg	Pro	His	Val	Lys	Gly	Leu	Arg	Val	Arg	Pro	Gly	Pro	Gly
		35					40					45			
Thr	Leu	Ser	Asn	Ala	Pro	Lys	Ser	Leu	Cys	Pro	Gly	Met	Ser	Asn	Ser
	50					55					60				
Asp	Arg	Gly	Ile	His	Gly	Gly	Glu	Gly	Gln	Gly	Pro	Gly	Lys	Arg	Ala
	65				70				75						80
Gly	His	Leu	Gly	Arg	Gly	Gly	Gly	Met	Ser	Phe	Leu				
				85					90		92				

<210> 3697
 <211> 118
 <212> PRT
 <213> Homo sapiens

<221> misc_feature
 <222> (1)...(118)
 <223> Xaa = any amino acid or nothing

<400> 3697

Val	Trp	Leu	Xaa	Thr	Leu	Ser	Xaa	His	Thr	Cys	Ala	Leu	Met	Thr	Val
1				5				10						15	
Cys	Arg	Ser	Cys	Leu	Val	Lys	Tyr	Leu	Glu	Glu	Asn	Asn	Thr	Cys	Pro
			20				25						30		
Thr	Cys	Arg	Ile	Val	Ile	His	Gln	Ser	His	Pro	Leu	Gln	Tyr	Ile	Gly
		35					40					45			
His	Asp	Arg	Thr	Met	Gln	Asp	Ile	Val	Tyr	Lys	Leu	Val	Pro	Gly	Leu
	50					55					60				
Gln	Glu	Ala	Glu	Met	Arg	Lys	Gln	Arg	Glu	Phe	Tyr	His	Lys	Leu	Gly
	65				70				75						80
Met	Glu	Val	Pro	Gly	Asp	Ile	Lys	Gly	Glu	Thr	Cys	Ser	Ala	Lys	Gln
				85					90					95	
His	Leu	Asp	Ser	His	Arg	Asn	Gly	Glu	Thr	Lys	Ala	Asp	Asp	Ser	Ser
			100				105						110		
Asn	Lys	Glu	Ala	Ala	Glu										
		115			118										

<210> 3698

<211> 190

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(190)

<223> Xaa = any amino acid or nothing

<400> 3698

Lys	Gln	Cys	Gly	Ile	Pro	His	Glu	Val	Val	Arg	Asp	Glu	Asn	Ser	Ser
1				5				10						15	
Val	Tyr	Ala	Glu	Val	Ser	Arg	Leu	Leu	Leu	Ala	Thr	Gly	His	Trp	Lys
			20					25						30	
Arg	Leu	Arg	Arg	Asp	Asn	Pro	Arg	Phe	Asn	Leu	Met	Leu	Gly	Glu	Arg
			35					40						45	
Asn	Arg	Leu	Pro	Phe	Gly	Arg	Leu	Gly	His	Glu	Pro	Gly	Leu	Val	Gln
			50					55						60	
Leu	Val	Asn	Tyr	Tyr	Arg	Gly	Ala	Asp	Lys	Leu	Cys	Arg	Lys	Ala	Ser
															80
Leu	Val	Lys	Leu	Ile	Lys	Thr	Ser	Pro	Glu	Leu	Ala	Glu	Ser	Cys	Thr
															95
Trp	Phe	Pro	Glu	Ser	Tyr	Val	Ile	Tyr	Pro	Thr	Asn	Leu	Lys	Thr	Pro
															110
Val	Ala	Pro	Ala	Gln	Asn	Gly	Ile	Gln	Pro	Pro	Ile	Ser	Asn	Ser	Arg
															125
Thr	Asp	Glu	Arg	Glu	Phe	Phe	Leu	Ala	Ser	Tyr	Asn	Arg	Lys	Lys	Glu
															140
Asp	Gly	Glu	Gly	Asn	Val	Trp	Ile	Ala	Lys	Ser	Ser	Ala	Gly	Ala	Lys
															160
Val	Trp	Val	Gln	Trp	Xaa	Met	Thr	Asp	Leu	Glu	Glu	Glu	Ile	Asp	Ile
															175
Pro	Ser	Pro	Val	Gly	Leu	Gly	Leu	Glu	Ser	Glu	Trp	Pro	Leu		
															190

<210> 3699

<211> 141

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(141)

<223> Xaa = any amino acid or nothing

<400> 3699

Leu	His	Cys	Lys	Met	Gly	Ala	Leu	Glu	Thr	Gln	Thr	His	Pro	Cys	Ser
1				5				10						15	
Gln	Asn	Met	Leu	Arg	Ser	Leu	Gln	Lys	Cys	Cys	Cys	Lys	Val	Glu	Glu
															30
His	His	Leu	Gln	Pro	Val	Gln	Val	Leu	Gln	Thr	Leu	Leu	His	Ser	Ala
															45
Thr	Ala	Gly	Thr	Gly	Cys	Arg	Arg	Pro	Ala	Arg	Pro	Pro	Pro	Ala	Pro
															60
Pro	Thr	Pro	Thr	Pro	Trp	Arg	Ser	Arg	Gln	Ser	Gly	Lys	Gln	Ser	Glu
															80
Arg	Ala	Ser	Xaa	Leu	Lys	Gly	Arg	Gly	Arg	Tyr	Gly	Leu	Gly	Ala	Leu
															95
Gly	Gly	Arg	Gly	Gly	Arg	Ala	Leu	Gly	Gly	Ser	Arg	Trp	Pro	Pro	Pro
															110
Leu	Pro	Gly	Glu	Thr	Leu	Phe	Ser	Gly	Cys	Lys	His	Arg	Arg	Arg	Arg

	115		120		125
Arg	Gly Ser Asp Ala Ala	Pro Gly Glu Glu Ala	Gly Thr		
130		135	140 141		

<210> 3700
 <211> 428
 <212> PRT
 <213> Homo sapiens

<400> 3700

Gly	Tyr	Gln	Ile	Gly	Met	Ala	Leu	Ala	Ser	Gly	Pro	Ala	Arg	Arg	Ala
1				5					10					15	
Leu	Ala	Gly	Ser	Gly	Gln	Leu	Gly	Leu	Gly	Gly	Phe	Gly	Ala	Pro	Arg
		20					25					30			
Arg	Gly	Ala	Tyr	Glu	Trp	Gly	Val	Arg	Ser	Thr	Arg	Lys	Ser	Glu	Pro
	35					40					45				
Pro	Pro	Leu	Asp	Arg	Val	Tyr	Glu	Ile	Pro	Gly	Leu	Glu	Pro	Ile	Thr
	50				55					60					
Phe	Ala	Gly	Lys	Met	His	Phe	Val	Pro	Trp	Leu	Ala	Arg	Pro	Ile	Phe
65				70					75					80	
Pro	Pro	Trp	Asp	Arg	Gly	Tyr	Lys	Asp	Pro	Arg	Phe	Tyr	Arg	Ser	Pro
			85					90					95		
Pro	Leu	His	Glu	His	Pro	Leu	Tyr	Lys	Asp	Gln	Ala	Cys	Tyr	Ile	Phe
		100					105						110		
His	His	Arg	Cys	Arg	Leu	Leu	Glu	Val	Lys	Gln	Ala	Leu	Trp	Leu	
	115					120				125					
Thr	Lys	Thr	Lys	Leu	Ile	Glu	Gly	Leu	Pro	Glu	Lys	Val	Leu	Ser	Leu
	130				135					140					
Val	Asp	Asp	Pro	Arg	Asn	His	Ile	Glu	Asn	Gln	Asp	Glu	Cys	Val	Leu
145				150					155					160	
Asn	Val	Ile	Ser	His	Ala	Arg	Leu	Trp	Gln	Thr	Thr	Glu	Glu	Ile	Pro
			165					170						175	
Lys	Arg	Glu	Thr	Tyr	Cys	Pro	Val	Ile	Val	Asp	Asn	Leu	Ile	Gln	Leu
		180					185						190		
Cys	Lys	Ser	Gln	Ile	Leu	Lys	His	Pro	Ser	Leu	Ala	Arg	Arg	Ile	Cys
	195					200					205				
Val	Gln	Asn	Ser	Thr	Phe	Ser	Ala	Thr	Trp	Asn	Arg	Glu	Ser	Leu	Leu
	210				215					220					
Leu	Gln	Val	Arg	Gly	Ser	Gly	Gly	Ala	Arg	Leu	Ser	Thr	Lys	Asp	Pro
225				230					235					240	
Leu	Pro	Thr	Ile	Ala	Ser	Arg	Glu	Glu	Ile	Glu	Ala	Thr	Lys	Asn	His
			245				250						255		
Val	Leu	Glu	Thr	Phe	Tyr	Pro	Ile	Ser	Pro	Ile	Ile	Asp	Leu	His	Glu
		260					265						270		
Cys	Asn	Ile	Tyr	Asp	Val	Lys	Asn	Asp	Thr	Gly	Phe	Gln	Glu	Gly	Tyr
	275					280					285				
Pro	Tyr	Pro	Tyr	Pro	His	Thr	Leu	Tyr	Leu	Leu	Asp	Lys	Ala	Asn	Leu
	290				295						300				
Arg	Pro	His	Arg	Leu	Gln	Pro	Asp	Gln	Leu	Arg	Ala	Lys	Met	Ile	Leu
305				310					315					320	
Phe	Ala	Phe	Gly	Ser	Ala	Leu	Ala	Gln	Ala	Arg	Leu	Leu	Tyr	Gly	Asn
			325				330						335		
Asp	Ala	Lys	Val	Leu	Glu	Gln	Pro	Val	Val	Val	Gln	Ser	Val	Gly	Thr
		340				345					350				
Asp	Gly	Arg	Val	Phe	His	Phe	Leu	Val	Phe	Gln	Leu	Asn	Thr	Thr	Asp
	355					360					365				
Leu	Asp	Ser	Asn	Glu	Gly	Val	Lys	Asn	Leu	Ala	Trp	Val	Asp	Ser	Asp
	370				375					380					
Gln	Leu	Leu	Tyr	Gln	His	Phe	Trp	Cys	Leu	Pro	Val	Ile	Lys	Lys	Arg
385				390					395					400	
Val	Val	Val	Glu	Pro	Val	Gly	Pro	Val	Gly	Phe	Lys	Pro	Glu	Thr	Phe

				405					410			415
Arg	Lys	Phe	Leu	Ala	Leu	Tyr	Leu	His	Gly	Ala	Ala	
			420					425		428		

<210> 3701
 <211> 126
 <212> PRT
 <213> Homo sapiens

<400> 3701

Trp	Thr	Leu	Cys	Gly	Pro	Glu	Ala	Gly	Met	Val	Gly	Tyr	Asp	Pro	Lys
1				5					10					15	
Pro	Asp	Gly	Arg	Asn	Asn	Thr	Lys	Phe	Gln	Val	Ala	Val	Ala	Gly	Ser
			20					25					30		
Val	Ser	Gly	Leu	Val	Thr	Arg	Ala	Leu	Ile	Ser	Pro	Phe	Asp	Val	Ile
		35					40					45			
Lys	Ile	Arg	Phe	Gln	Leu	Gln	His	Glu	Arg	Leu	Ser	Arg	Ser	Asp	Pro
	50					55					60				
Ser	Ala	Lys	Tyr	His	Gly	Ile	Leu	Gln	Ala	Ser	Arg	Gln	Ile	Leu	Gln
65					70					75				80	
Glu	Glu	Gly	Pro	Thr	Ala	Phe	Trp	Lys	Gly	His	Val	Pro	Ala	Gln	Ile
				85					90					95	
Leu	Ser	Ile	Gly	Tyr	Gly	Ala	Val	Gln	Phe	Leu	Ser	Phe	Glu	Met	Leu
			100					105					110		
Thr	Glu	Leu	Val	His	Arg	Gly	Ser	Val	Tyr	Asp	Ala	Arg	Glu		
		115					120					125	126		

<210> 3702
 <211> 216
 <212> PRT
 <213> Homo sapiens

<400> 3702

Gly	Phe	Trp	Glu	Lys	Thr	Asn	Gln	Ser	Ser	His	Ser	Met	Asp	Pro	Leu
1				5					10					15	
Gly	Ala	Pro	Ser	Gln	Phe	Val	Asp	Val	Asp	Thr	Leu	Pro	Ser	Trp	Gly
			20					25					30		
Asp	Ser	Cys	Gln	Asp	Glu	Leu	Asn	Ser	Ser	Asp	Thr	Thr	Ala	Glu	Ile
		35					40					45			
Phe	Gln	Glu	Asp	Thr	Val	Arg	Ser	Pro	Phe	Leu	Tyr	Asn	Lys	Asp	Val
	50					55					60				
Asn	Gly	Lys	Val	Val	Leu	Trp	Lys	Gly	Asp	Val	Ala	Leu	Leu	Asn	Cys
65					70					75				80	
Thr	Ala	Ile	Val	Asn	Thr	Ser	Asn	Glu	Ser	Leu	Thr	Asp	Lys	Asn	Pro
			85					90						95	
Val	Ser	Glu	Ser	Ile	Phe	Met	Leu	Ala	Gly	Pro	Asp	Leu	Lys	Glu	Asp
		100						105					110		
Leu	Gln	Lys	Leu	Lys	Gly	Cys	Arg	Thr	Gly	Glu	Ala	Gln	Leu	Thr	Lys
	115						120					125			
Gly	Phe	Asn	Leu	Ala	Ala	Arg	Phe	Ile	Ile	His	Thr	Val	Gly	Pro	Lys
	130					135					140				
Tyr	Lys	Ser	Arg	Tyr	Arg	Thr	Ala	Ala	Glu	Ser	Ser	Leu	Tyr	Ser	Cys
145					150					155				160	
Tyr	Arg	Asn	Val	Leu	Gln	Leu	Ala	Lys	Glu	Gln	Ser	Met	Ser	Ser	Val
			165						170					175	
Gly	Phe	Cys	Val	Ile	Asn	Ser	Ala	Lys	Arg	Gly	Tyr	Pro	Leu	Lys	Asp
		180						185					190		
Ala	Thr	His	Ile	Ala	Leu	Arg	Thr	Val	Arg	Arg	Phe	Leu	Glu	Ile	His

195 200 205
 Gly Glu Thr Ile Glu Lys Val Val
 210 215 216

<210> 3703
 <211> 376
 <212> PRT
 <213> Homo sapiens

<400> 3703
 Ser Leu Gly Pro Ser Pro Lys Ser Ala Thr Ile Pro Cys Cys Gly Asp
 1 5 10 15
 Thr Met Ala Pro Glu Glu Asp Ala Gly Gly Glu Ala Leu Gly Gly Ser
 20 25 30
 Phe Trp Glu Ala Gly Asn Tyr Arg Arg Thr Val Gln Arg Val Glu Asp
 35 40 45
 Gly His Arg Leu Cys Gly Asp Leu Val Ser Cys Phe Gln Glu Arg Ala
 50 55 60
 Arg Ile Glu Lys Ala Tyr Ala Gln Gln Leu Ala Asp Trp Ala Arg Lys
 65 70 75 80
 Trp Arg Gly Thr Val Glu Lys Gly Pro Gln Tyr Gly Thr Leu Glu Lys
 85 90 95
 Ala Trp His Ala Phe Phe Thr Ala Ala Glu Arg Leu Ser Ala Leu His
 100 105 110
 Leu Glu Val Arg Glu Lys Leu Gln Gly Gln Asp Ser Glu Arg Val Arg
 115 120 125
 Ala Trp Gln Arg Gly Ala Phe His Arg Pro Val Leu Gly Gly Phe Arg
 130 135 140
 Glu Ser Arg Ala Ala Glu Asp Gly Phe Arg Lys Ala Gln Lys Pro Trp
 145 150 155 160
 Leu Lys Arg Leu Lys Glu Val Glu Ala Ser Lys Lys Ser Tyr His Ala
 165 170 175
 Ala Arg Lys Asp Glu Lys Thr Ala Gln Thr Arg Glu Ser His Ala Lys
 180 185 190
 Ala Asp Ser Ala Val Ser Gln Glu Gln Leu Arg Lys Leu Gln Glu Arg
 195 200 205
 Val Glu Arg Cys Ala Lys Glu Ala Glu Lys Thr Lys Ala Gln Tyr Glu
 210 215 220
 Gln Thr Leu Ala Glu Leu His Arg Tyr Thr Pro Arg Tyr Met Glu Asp
 225 230 235 240
 Met Glu Gln Ala Phe Glu Thr Cys Gln Ala Ala Glu Arg Gln Arg Leu
 245 250 255
 Leu Phe Phe Lys Asp Met Leu Leu Thr Leu His Gln His Leu Asp Leu
 260 265 270
 Ser Ser Ser Glu Lys Phe His Glu Leu His Arg Asp Leu His Gln Gly
 275 280 285
 Ile Glu Ala Ala Ser Asp Glu Glu Asp Leu Arg Trp Trp Arg Ser Thr
 290 295 300
 His Gly Pro Gly Met Ala Met Asn Trp Pro Gln Phe Glu Glu Trp Ser
 305 310 315 320
 Leu Asp Thr Gln Arg Thr Ile Ser Arg Lys Glu Lys Gly Gly Arg Ser
 325 330 335
 Pro Asp Glu Val Thr Leu Thr Ser Ile Val Pro Thr Arg Asp Gly Thr
 340 345 350
 Ala Pro Pro Pro Gln Ser Pro Gly Ser Pro Gly Thr Gly Gln Asp Glu
 355 360 365
 Glu Trp Ser Asp Glu Glu Ser Pro
 370 375 376

<210> 3704
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 3704
 Ala Arg Gly Glu Asp Leu Ala Leu Ala Thr Gly Gly Gly Pro Asp Thr
 1 5 10 15
 Val Thr His Ser Asn Met Pro Cys Pro Asn Ser Leu Val Tyr Asp Cys
 20 25 30
 Trp Leu Asn Ile Lys Glu Cys Ser Val Gly Glu His Thr Phe Glu Asp
 35 40 45
 Leu Gly Leu Cys Pro Gly Arg Asn Gln Arg Glu Lys Lys Arg Ser Tyr
 50 55 60
 Lys Asp Phe Leu Arg Glu Glu Lys Ile Ala Ala Gln Val Arg Asn
 65 70 75 80
 Ser Ser Lys Lys Lys Leu Lys Asp Ser Glu
 85 90

<210> 3705
 <211> 382
 <212> PRT
 <213> Homo sapiens

<400> 3705
 Leu Asn Trp Ala Asn Leu Val Ile Met Trp Pro Arg Glu Glu Glu Lys
 1 5 10 15
 Glu Lys Val Gln Asp Tyr Ser Leu Gly Gly Leu Ser Pro Asp Leu Arg
 20 25 30
 Ile Asp Val Ser Arg Lys Lys Lys Ile Leu Lys Ala Tyr Asp Glu Asp
 35 40 45
 Glu Asp Glu Asp Leu Tyr Pro Asp Ile His Pro Pro Pro Ser Leu Pro
 50 55 60
 Leu Pro Gly Gln Phe Thr Cys Pro Gln Cys Arg Lys Ser Phe Thr Arg
 65 70 75 80
 Arg Ser Phe Arg Pro Asn Leu Gln Leu Ala Asn Met Val Gln Ile Ile
 85 90 95
 Arg Gln Met Cys Pro Thr Pro Tyr Arg Gly Asn Arg Ser Asn Asp Gln
 100 105 110
 Gly Met Cys Phe Lys His Gln Glu Ala Leu Lys Leu Phe Cys Glu Val
 115 120 125
 Asp Lys Glu Ala Ile Cys Val Val Cys Arg Glu Ser Arg Ser His Lys
 130 135 140
 Gln His Ser Val Leu Pro Leu Glu Glu Val Val Gln Glu Tyr Lys Ala
 145 150 155 160
 Lys Leu Gln Gly His Val Glu Pro Leu Arg Lys His Leu Glu Ala Val
 165 170 175
 Gln Lys Met Lys Ala Lys Glu Glu Arg Arg Val Thr Glu Leu Lys Ser
 180 185 190
 Gln Met Lys Ser Glu Leu Ala Ala Val Ala Ser Glu Phe Gly Arg Leu
 195 200 205
 Thr Arg Phe Leu Ala Glu Glu Gln Ala Gly Leu Glu Arg Arg Leu Arg
 210 215 220
 Glu Met His Glu Ala Gln Leu Gly Arg Ala Gly Ala Ala Ala Ser Arg
 225 230 235 240
 Leu Ala Glu Gln Ala Ala Gln Leu Ser Arg Leu Leu Ala Glu Ala Gln
 245 250 255
 Glu Arg Ser Gln Gln Gly Gly Leu Arg Leu Leu Gln Asp Ile Lys Glu
 260 265 270
 Thr Phe Asn Arg Cys Glu Glu Val Gln Leu Gln Pro Pro Glu Val Trp

275	280	285
Ser Pro Asp Pro Cys Gln Pro His Ser His Asp Phe Leu Thr Asp Ala		
290	295	300
Ile Val Arg Lys Met Ser Arg Met Phe Cys Gln Ala Ala Arg Val Asp		
305	310	315
Leu Thr Leu Asp Pro Asp Thr Ala His Pro Ala Leu Met Leu Ser Pro		
325	330	335
Asp Arg Arg Gly Val Arg Leu Ala Glu Arg Arg Gln Glu Val Ala Asp		
340	345	350
His Pro Lys Arg Phe Ser Ala Asp Cys Cys Val Leu Gly Ala Gln Gly		
355	360	365
Phe Arg Ser Gly Arg His Tyr Trp Glu Val Cys Met Gly Pro		
370	375	380 382

<210> 3706

<211> 597

<212> PRT

<213> Homo sapiens

<400> 3706

Ser Arg Glu Arg Gln Thr Thr Trp Met Asp His Asn Phe Ala Pro Ala	
1 5 10 15	
Pro Pro Glu Met Gln Ser His Gly Ala Pro Gly Pro Gly Thr Ser Phe	
20 25 30	
Ser His Ser His Val Leu Gly Arg Pro Ile Arg Pro Ser Arg Leu Pro	
35 40 45	
Gly Gly Gly Ser Pro Leu Thr Pro Val Leu Arg Lys Thr Ile His Leu	
50 55 60	
Asp Thr Phe Pro Gln Ser His Ile Pro Gln Thr Ser Ser Arg Leu Gly	
65 70 75 80	
Leu Gly Ala Arg Thr Arg Ser Val Pro Pro Gln Glu Thr Gly Ile Ala	
85 90 95	
Leu Gly Ala Ser Leu Ser Pro Leu Pro Thr Ser Ser Leu Val Pro Arg	
100 105 110	
Lys Leu Ser Ser Ile Ser Leu Thr Leu His Gln Asn Ser Gln Ala Arg	
115 120 125	
Ser Leu Asp Arg Pro Leu Ser His Trp Glu Glu Leu Pro Thr Pro Gly	
130 135 140	
Lys Lys Ala Ala Pro His Glu Gly Gly Arg Val Ser Ser Pro Gly Ser	
145 150 155 160	
Pro Pro Val Thr Leu Val Pro Gly Gly Arg Val His Ser Glu Gly Pro	
165 170 175	
Gly Asn Pro Gly Leu Thr Lys Ser Asn Arg Met Leu Ala Thr Glu Lys	
180 185 190	
Pro Leu Val Ser Ser Tyr Leu Ala Leu Pro Phe Gln Ser Arg Leu Ala	
195 200 205	
Gln Ser Ala Pro Val Leu Ala Glu Pro Gly Ser Leu Gly Gln Gly His	
210 215 220	
Leu Val Ser Val Thr Asp His Met Pro Thr Arg Ala Ser Pro Gly Lys	
225 230 235 240	
Gly Lys Pro Arg Ala Arg Gly Ile Pro Arg Pro Arg Gly Arg Leu Gln	
245 250 255	
Arg Ala Asn Thr Thr Val Asn Leu Thr Ala Met Asp Thr Arg Thr Asp	
260 265 270	
Ala Ala Arg His Leu Ala Thr Met Ala Thr Asn Arg Pro Ser Leu Ala	
275 280 285	
Ile Asn Leu Ala Thr Pro Asn Thr Ser Gln Leu Asp Thr Gly Thr Glu	
290 295 300	
Phe Pro Ala Leu Asp Ile Lys Leu Gly Thr Ala Arg Asp Leu Ser Ser	
305 310 315 320	
Val Gly Thr Val Lys Ser Gly Lys Thr Val Asn Leu Ala Thr Ala Gly	

				325					330					335					
Thr	Ile	Lys	Pro	Gly	Thr	Ala	Met	Asn	Leu	Thr	Thr	Val	Gly	Thr	Thr				
				340					345					350					
Lys	Pro	Gly	Met	Val	Met	Asp	Leu	Ile	Ala	Ser	Glu	Pro	Asp	Lys	Leu				
				355				360					365						
Gly	Lys	Ala	Met	Ala	Thr	Arg	Ser	Thr	Ala	Lys	Pro	Asp	Met	Thr	Thr				
				370				375				380							
Glu	Gly	Ile	Ala	Met	Asp	Ser	Ala	Thr	Ser	Asp	Pro	Val	Lys	Pro	Asp				
385					390					395					400				
Thr	Ile	Thr	Ala	Thr	Val	Gly	Thr	Ser	Arg	Leu	Glu	Thr	Ala	Met	Ala				
				405					410					415					
Leu	Ala	Arg	Val	Asn	Arg	Ala	Lys	Leu	Gly	Thr	Ala	Lys	Asn	Ser	Leu				
				420				425					430						
Ala	Leu	Asp	Thr	Ser	Arg	Met	Gly	Thr	Ala	Val	Gly	Ser	Val	Val	Pro				
				435				440				445							
Val	Thr	Pro	Asp	Pro	Ala	Thr	Gly	Lys	Thr	Thr	Leu	Gly	Ser	Val	Asn				
				450			455				460								
Asn	Leu	Thr	Ile	Ser	Asp	Val	Ala	Thr	Cys	Leu	Leu	Met	Pro	Ser	Arg				
465					470					475					480				
Ser	Thr	Asp	Leu	Ala	Leu	Asp	Asn	Thr	Asn	Ala	Ala	Met	Asp	Arg	Ala				
				485					490					495					
Thr	Glu	Pro	Ala	Ser	Leu	Asp	Leu	Ala	Thr	Glu	Tyr	Lys	Gly	Lys	Cys				
				500				505					510						
Arg	Asn	Leu	Val	Gly	Asp	Gly	Leu	Gly	Cys	Arg	Glu	Gly	Glu	Val	Cys				
				515				520				525							
Glu	Leu	Gly	Asp	Gly	Ser	Met	Lys	Pro	Met	Ser	Ile	Asn	Ser	Asn	Leu				
				530			535					540							
Leu	Gly	Tyr	Ile	Gly	Ile	Asp	Thr	Ile	Ile	Glu	Gln	Met	Arg	Lys	Lys				
545					550					555					560				
Thr	Met	Lys	Thr	Gly	Phe	Asp	Phe	Asn	Ile	Met	Val	Val	Gly	Thr	Glu				
				565				570						575					
Gly	Cys	Gly	Ala	Ala	Ala	Gly	Leu	Val	Ala	Gly	Ser	Thr	Lys	Asp	Pro				
				580				585					590						
Ile	Ser	Phe	Pro	Gln															
				595			597												

<210> 3707

<211> 182

<212> PRT

<213> Homo sapiens

<400> 3707

Ser	Ser	Ser	Ile	Ser	Arg	Asp	Phe	Leu	Gly	Gln	Ala	Ala	Cys	Ala	Ser				
1				5					10					15					
Gly	Thr	Met	Leu	Arg	Trp	Leu	Arg	Asp	Phe	Val	Leu	Pro	Thr	Ala	Ala				
				20				25					30						
Cys	Gln	Asp	Ala	Glu	Gln	Pro	Met	Arg	Tyr	Glu	Thr	Leu	Phe	Gln	Ala				
				35				40				45							
Leu	Asp	Arg	Asn	Gly	Asp	Gly	Val	Val	Asp	Ile	Gly	Glu	Leu	Gln	Glu				
				50			55				60								
Gly	Leu	Arg	Asn	Leu	Gly	Ile	Pro	Leu	Gly	Gln	Asp	Ala	Glu	Glu	Lys				
				65		70				75				80					
Ile	Phe	Thr	Thr	Gly	Asp	Val	Asn	Lys	Asp	Gly	Lys	Leu	Asp	Phe	Glu				
				85				90						95					
Glu	Phe	Met	Lys	Tyr	Leu	Lys	Asp	His	Glu	Lys	Lys	Met	Lys	Leu	Ala				
				100				105					110						
Phe	Lys	Ser	Leu	Asp	Lys	Asn	Asn	Asp	Gly	Lys	Ile	Glu	Ala	Ser	Glu				
				115			120					125							
Ile	Val	Gln	Ser	Leu	Gln	Thr	Leu	Gly	Leu	Thr	Ile	Ser	Glu	Gln	Gln				
				130			135				140								
Ala	Glu	Leu	Ile	Leu	Gln	Ser	Ile	Asp	Val	Asp	Gly	Thr	Met	Thr	Val				

145		150		155		160
Asp Trp Asn Glu Trp Arg Asp Tyr Phe Leu Phe Asn Pro Val Thr Asp						
		165		170		175
Ile Glu Glu Ile Ile Arg						
		180		182		

<210> 3708
 <211> 622
 <212> PRT
 <213> Homo sapiens

<400> 3708

Glu Phe Arg Gly Ala Gly Arg Ala Asn Met Leu Ala Pro Arg Gly Ala																
1				5				10						15		
Ala Val Leu Leu Leu His Leu Val Leu Gln Arg Trp Leu Ala Ala Gly																
			20					25						30		
Ala Gln Ala Thr Pro Gln Val Phe Asp Leu Leu Pro Ser Ser Ser Gln																
			35				40						45			
Arg Leu Asn Pro Gly Ala Leu Leu Pro Val Leu Thr Asp Pro Ala Leu																
			50				55						60			
Asn Asp Leu Tyr Val Ile Ser Thr Phe Lys Leu Gln Thr Lys Ser Ser																
			65			70				75						80
Ala Thr Ile Phe Gly Leu Tyr Ser Ser Thr Asp Asn Ser Lys Tyr Phe																
				85					90							95
Glu Phe Thr Val Met Gly Arg Leu Ser Lys Ala Ile Leu Arg Tyr Leu																
			100					105						110		
Lys Asn Asp Gly Lys Val His Leu Val Val Phe Asn Asn Leu Gln Leu																
			115				120						125			
Ala Asp Gly Arg Arg His Arg Ile Leu Leu Arg Leu Ser Asn Leu Gln																
			130			135				140						
Arg Gly Ala Gly Ser Leu Glu Leu Tyr Leu Asp Cys Ile Gln Val Asp																
145					150				155							160
Ser Val His Asn Leu Pro Arg Ala Phe Ala Gly Pro Ser Gln Lys Pro																
				165				170								175
Glu Thr Ile Glu Leu Arg Thr Phe Gln Arg Lys Pro Gln Asp Phe Leu																
			180					185						190		
Glu Glu Leu Lys Leu Val Val Arg Gly Ser Leu Phe Gln Val Ala Ser																
			195				200						205			
Leu Gln Asp Cys Phe Leu Gln Gln Ser Glu Pro Leu Ala Ala Thr Gly																
			210			215						220				
Thr Gly Asp Phe Asn Arg Gln Phe Leu Gly Gln Met Thr Gln Leu Asn																
225					230				235							240
Gln Leu Leu Gly Glu Val Lys Asp Leu Leu Arg Gln Glu Val Asn Glu																
				245				250							255	
Thr Ser Phe Leu Arg Asn Thr Ile Thr Glu Cys Gln Ala Cys Gly Pro																
			260					265						270		
Leu Lys Phe Gln Ser Pro Thr Pro Ser Thr Val Val Pro Pro Ala Ser																
			275				280						285			
Pro Ala Pro Pro Thr Arg Pro Pro Arg Arg Cys Asp Ser Asn Pro Cys																
			290			295				300						
Phe Arg Gly Val Gln Cys Thr Asp Ser Arg Asp Gly Phe Gln Cys Gly																
305					310				315							320
Pro Cys Pro Glu Gly Tyr Thr Gly Asn Gly Ile Thr Cys Ile Asp Val																
				325				330							335	
Asp Glu Cys Lys Tyr His Pro Cys Tyr Pro Gly Glu His Cys Ile Asn																
			340				345						350			
Leu Ser Pro Gly Phe Arg Cys Asp Ala Cys Pro Val Gly Phe Thr Gly																
			355				360						365			
Pro Met Val Gln Gly Val Gly Ile Ser Phe Ala Lys Ser Asn Lys Gln																
			370			375			380							
Val Cys Thr Asp Ile Asp Glu Cys Arg Asn Gly Ala Cys Val Pro Asn																

385		390		395		400
Ser Ile Cys Val	Asn Thr Leu Gly Ser Tyr Arg Cys Gly Pro Cys Lys					
	405		410		415	
Pro Gly Tyr Thr	Gly Asp Gln Ile Arg Gly Cys Lys Ala Glu Arg Asn					
	420		425		430	
Cys Arg Asn Pro	Glu Leu Asn Pro Cys Ser Val Asn Ala Gln Cys Ile					
	435		440		445	
Glu Glu Arg Gln	Gly Asp Val Thr Cys Val Cys Gly Val Gly Trp Ala					
	450		455		460	
Gly Asp Gly Tyr	Ile Cys Gly Lys Asp Val Asp Ile Asp Ser Tyr Pro					
465	470		475		480	
Asp Glu Glu Leu	Pro Cys Ser Ala Arg Asn Cys Lys Lys Asp Asn Cys					
	485		490		495	
Lys Tyr Val Pro	Asn Ser Gly Gln Glu Asp Ala Asp Arg Asp Gly Ile					
	500		505		510	
Gly Asp Ala Cys	Asp Glu Asp Ala Asp Gly Asp Gly Ile Leu Asn Glu					
	515		520		525	
Gln Asp Asn Cys	Val Leu Ile His Asn Val Asp Gln Arg Asn Ser Asp					
	530		535		540	
Lys Asp Ile Phe	Gly Asp Ala Cys Asp Asn Cys Leu Ser Val Leu Asn					
545	550		555		560	
Asn Asp Gln Lys	Asp Thr Asp Gly Asp Gly Arg Gly Asp Ala Cys Asp					
	565		570		575	
Asp Asp Met Asp	Gly Asp Gly Ile Lys Asn Ile Leu Asp Asn Cys Pro					
	580		585		590	
Lys Phe Pro Asn	Arg Asp Gln Arg Asp Lys Asp Gly Asp Gly Val Gly					
	595		600		605	
Asp Ala Cys Asp	Ser Cys Pro Asp Val Ser Asn Pro Asn Gln					
610	615		620		622	

<210> 3709
 <211> 91
 <212> PRT
 <213> Homo sapiens

<400> 3709															
Thr Gln Ala Met	Glu Gly Leu Leu His Tyr Ile Asn Pro Ala His Ala														
1	5 10 15														
Ile Ser Leu Leu	Ser Ala Leu Asn Glu Glu Arg Leu Lys Gly Gln Leu														
	20 25 30														
Cys Asp Val Leu	Leu Ile Val Gly Asp Gln Lys Phe Arg Ala His Lys														
	35 40 45														
Asn Val Leu Ala	Ala Ser Ser Glu Tyr Phe Gln Ser Leu Phe Thr Asn														
	50 55 60														
Lys Glu Asn Glu	Ser Gln Thr Val Phe Gln Leu Asp Phe Cys Glu Pro														
65	70 75 80														
Asp Ala Phe Asp	Asn Val Leu Asn Tyr Ile Tyr														
	85 90 91														

<210> 3710
 <211> 147
 <212> PRT
 <213> Homo sapiens

<400> 3710															
Phe Gly Met Leu	Lys Asn Lys Gly His Ser Ser Lys Lys Asp Asn Leu														
1	5 10 15														
Ala Val Asn Ala	Val Ala Leu Gln Asp His Ile Leu His Asp Leu Gln														

			20					25					30				
Leu	Arg	Asn	Leu	Ser	Val	Ala	Asp	His	Ser	Lys	Thr	Gln	Val	Gln	Lys		
		35						40					45				
Lys	Glu	Asn	Lys	Ser	Leu	Lys	Arg	Asp	Thr	Lys	Ala	Ile	Ile	Asp	Thr		
	50					55					60						
Gly	Leu	Lys	Lys	Thr	Thr	Gln	Cys	Pro	Lys	Leu	Glu	Asp	Ser	Glu	Lys		
65					70					75					80		
Glu	Tyr	Val	Leu	Asp	Pro	Lys	Pro	Pro	Pro	Leu	Thr	Leu	Ala	Gln	Lys		
				85					90					95			
Leu	Gly	Leu	Ile	Gly	Pro	Pro	Pro	Pro	Pro	Leu	Ser	Ser	Asp	Glu	Trp		
		100						105					110				
Glu	Lys	Val	Lys	Gln	Arg	Ser	Leu	Leu	Gln	Gly	Asp	Ser	Val	Gln	Pro		
	115						120					125					
Cys	Pro	Ile	Cys	Lys	Glu	Glu	Phe	Glu	Leu	Arg	Pro	Gln	Val	Phe	Ser		
	130					135					140						
Ile	Arg	Gly															
145		147															

<210> 3711

<211> 256

<212> PRT

<213> Homo sapiens

<400> 3711

Ser	Leu	Glu	Met	Ser	Ser	Asp	Gly	Glu	Pro	Leu	Ser	Arg	Met	Asp	Ser		
1				5				10					15				
Glu	Asp	Ser	Ile	Ser	Ser	Thr	Ile	Met	Asp	Val	Asp	Ser	Thr	Ile	Ser		
			20					25					30				
Ser	Gly	Arg	Ser	Thr	Pro	Ala	Met	Met	Asn	Gly	Gln	Gly	Ser	Thr	Thr		
	35						40					45					
Ser	Ser	Ser	Lys	Asn	Ile	Ala	Tyr	Asn	Cys	Cys	Trp	Asp	Gln	Cys	Gln		
	50					55					60						
Ala	Cys	Phe	Asn	Ser	Ser	Pro	Asp	Leu	Ala	Asp	His	Ile	Arg	Ser	Ile		
65					70					75					80		
His	Val	Asp	Gly	Gln	Arg	Gly	Gly	Val	Phe	Val	Cys	Leu	Trp	Lys	Gly		
				85					90					95			
Cys	Lys	Val	Tyr	Asn	Thr	Pro	Ser	Thr	Ser	Gln	Ser	Trp	Leu	Gln	Arg		
		100						105					110				
His	Met	Leu	Thr	His	Ser	Gly	Asp	Lys	Pro	Phe	Lys	Cys	Val	Val	Gly		
	115						120					125					
Gly	Cys	Asn	Ala	Ser	Phe	Ala	Ser	Gln	Gly	Gly	Leu	Ala	Arg	His	Val		
	130					135					140						
Pro	Thr	His	Phe	Ser	Gln	Gln	Asn	Ser	Ser	Lys	Val	Ser	Ser	Gln	Pro		
145					150					155					160		
Lys	Ala	Lys	Glu	Glu	Ser	Pro	Ser	Lys	Ala	Gly	Met	Asn	Lys	Arg	Arg		
			165						170					175			
Lys	Leu	Lys	Asn	Lys	Arg	Arg	Arg	Ser	Leu	Ala	Arg	Pro	His	Asp	Phe		
			180					185					190				
Phe	Asp	Ala	Gln	Thr	Leu	Asp	Ala	Ile	Arg	His	Arg	Ala	Ile	Cys	Phe		
	195						200						205				
Asn	Leu	Ser	Ala	His	Ile	Glu	Ser	Leu	Gly	Lys	Gly	His	Ser	Val	Val		
	210					215					220						
Phe	His	Ser	Thr	Val	Ser	Ile	Leu	Leu	Phe	Phe	Gln	Ile	Lys	Tyr	Lys		
225					230					235					240		
Thr	Leu	Gln	Lys	Asn	Ile	Ser	Thr	Ile	Ile	Ser	Lys	Ser	Leu	Lys	Ile		
			245						250					255	256		

<210> 3712
 <211> 114
 <212> PRT
 <213> Homo sapiens

<400> 3712
 Arg Ala Thr Trp His Asn Ala Gly Lys Glu Arg Glu Ala Val Gln Leu
 1 5 10 15
 Met Ala Gly Ala Glu Lys Arg Val Lys Ala Ser His Ser Phe Leu Arg
 20 25 30
 Gly Leu Phe Gly Gly Asn Thr Arg Ile Glu Glu Ala Cys Glu Met Tyr
 35 40 45
 Thr Arg Ala Ala Asn Met Phe Lys Met Ala Lys Asn Trp Ser Ala Ala
 50 55 60
 Gly Asn Ala Phe Cys Gln Ala Ala Lys Leu His Met Gln Leu Gln Ser
 65 70 75 80
 Lys His Asp Ser Ala Thr Ser Phe Val Asp Ala Gly Asn Ala Tyr Lys
 85 90 95
 Lys Ala Asp Pro Gln Gly Lys Thr Ala Arg His Val Ala Cys Tyr Leu
 100 105 110
 Cys Val
 114

<210> 3713
 <211> 318
 <212> PRT
 <213> Homo sapiens

<400> 3713
 Gly Ala Ala Ala Thr Ala Cys Ser Ser Ser Ser Ser Ser Ser Gly Ala
 1 5 10 15
 Pro Ala Thr Trp Ala Ala His Gly Pro Gly Lys Asp Val Ala Ser Pro
 20 25 30
 Ser Ser Val Ser Leu Ser Pro Arg Arg Ser Arg Leu Leu Val Leu Arg
 35 40 45
 Cys Gly Leu Arg Arg Asn Pro Glu Arg Pro Ser Ser Ser Pro Ala Leu
 50 55 60
 Arg Arg Leu Leu Leu Leu Leu Leu Leu Leu Leu Leu Leu Leu Gly
 65 70 75 80
 Phe Leu Leu Ser Pro Gly Pro Glu Arg Gly Val Gly Gly Gly Arg Phe
 85 90 95
 Gly Arg Arg Leu Ala Leu Leu Trp Ala Ala Ala Leu Gly His Val Val
 100 105 110
 Ser Gly Lys Val Met Ser Arg Arg Ala Pro Gly Ser Arg Leu Ser Ser
 115 120 125
 Gly Gly Gly Gly Gly Gly Thr Asn Tyr Ser Arg Ser Trp Asn Asp Trp
 130 135 140
 Gln Pro Arg Thr Asp Ser Ala Ser Ala Asp Pro Gly Asn Leu Lys Tyr
 145 150 155 160
 Ser Ser Ser Arg Asp Arg Gly Gly Ser Ser Ser Tyr Gly Leu Gln Pro
 165 170 175
 Ser Asn Ser Ala Val Val Ser Arg Gln Arg His Asp Asp Thr Arg Val
 180 185 190
 His Ala Asp Ile Gln Asn Asp Glu Lys Gly Gly Tyr Ser Val Asn Gly
 195 200 205
 Gly Ser Gly Glu Asn Thr Tyr Gly Arg Lys Ser Leu Gly Gln Glu Leu
 210 215 220
 Arg Val Asn Asn Val Thr Ser Pro Glu Phe Thr Ser Val Gln His Gly
 225 230 235 240
 Ser Arg Ala Leu Ala Thr Lys Asp Met Arg Lys Ser Gln Glu Arg Ser

				245					250					255					
Met	Ser	Tyr	Cys	Asp	Glu	Ser	Arg	Leu	Ser	Tyr	Leu	Leu	Arg	Arg	Ile				
			260					265					270						
Thr	Arg	Glu	Asn	Asp	Arg	Asp	Arg	Arg	Leu	Ala	Thr	Val	Lys	Gln	Leu				
		275					280					285							
Lys	Glu	Phe	Ile	Gln	Gln	Pro	Glu	Asn	Lys	Leu	Val	Leu	Val	Lys	Gln				
	290					295				300									
Leu	Asp	Ile	Leu	Ala	Ala	Val	His	Asp	Val	Leu	Asn	Glu	Arg						
305					310					315			318						

<210> 3714
 <211> 74
 <212> PRT
 <213> Homo sapiens

<400> 3714

Ile	Phe	Ala	Leu	Lys	Ser	Pro	Ser	Tyr	Leu	Leu	Pro	Cys	Cys	Thr	Pro				
1				5					10					15					
Glu	Gly	Lys	Met	Asp	His	Lys	Gln	Leu	Cys	Trp	Ser	His	Pro	Gln	Lys				
		20						25				30							
Ser	Gly	Gln	Ser	Ser	Arg	Ser	Cys	Cys	Ile	Cys	Ser	Asn	Gln	His	Gly				
	35					40				45									
Leu	Ile	Trp	Lys	Tyr	Ser	Leu	Asn	Met	Cys	Leu	Gln	Cys	Cys	His	Gln				
	50					55				60									
Tyr	Val	Lys	Asp	Ile	Gly	Phe	Ile	Lys	Leu										
65					70				74										

<210> 3715
 <211> 185
 <212> PRT
 <213> Homo sapiens

<400> 3715

Leu	Cys	Thr	Leu	Ser	Pro	Gly	Ile	Ser	Gly	Thr	Ala	Gly	Ser	Cys	Leu				
1				5					10					15					
Thr	Thr	Glu	Pro	Gly	Thr	Glu	Leu	Gly	Thr	Ser	Phe	Ala	Gln	Asn	Gly				
		20						25					30						
Phe	Tyr	His	Glu	Ala	Val	Val	Leu	Phe	Thr	Gln	Ala	Leu	Lys	Leu	Asn				
	35					40				45									
Pro	Gln	Asp	His	Arg	Leu	Phe	Gly	Asn	Arg	Ser	Phe	Cys	His	Glu	Arg				
	50				55					60									
Leu	Gly	Gln	Pro	Ala	Trp	Ala	Leu	Ala	Asp	Ala	Gln	Val	Ala	Leu	Thr				
65				70					75					80					
Leu	Arg	Pro	Gly	Trp	Pro	Arg	Gly	Leu	Phe	Arg	Leu	Gly	Lys	Ala	Leu				
		85					90					95							
Met	Gly	Leu	Gln	Arg	Phe	Arg	Glu	Ala	Ala	Ala	Val	Phe	Gln	Glu	Thr				
	100					105						110							
Leu	Arg	Gly	Gly	Ser	Gln	Pro	Asp	Ala	Ala	Arg	Glu	Leu	Arg	Ser	Cys				
	115					120					125								
Leu	Leu	His	Leu	Thr	Leu	Gln	Gly	Gln	Arg	Gly	Gly	Ile	Cys	Ala	Pro				
	130				135					140									
Pro	Leu	Ser	Pro	Gly	Ala	Leu	Gln	Pro	Leu	Pro	His	Ala	Glu	Leu	Ala				
145				150					155					160					
Pro	Ser	Gly	Leu	Pro	Ser	Leu	Arg	Cys	Pro	Arg	Ser	Thr	Ala	Leu	Arg				
		165					170					175							
Ser	Pro	Gly	Leu	Ser	Pro	Leu	Leu	His											
	180						185												

<210> 3716
 <211> 74
 <212> PRT
 <213> Homo sapiens

<400> 3716
 Gln Gly Leu Pro Ser Thr Met Val Lys Leu Gly Cys Ser Phe Ser Gly
 1 5 10 15
 Lys Pro Gly Lys Asp Pro Gly Asp Gln Asp Gly Ala Ala Met Asp Ser
 20 25 30
 Val Pro Leu Ile Ser Pro Leu Asp Ile Ser Gln Leu Gln Pro Pro Leu
 35 40 45
 Pro Asp Gln Val Val Ile Lys Thr Gln Thr Glu Tyr Gln Leu Ser Ser
 50 55 60
 Pro Asp Gln Gln Asn Tyr Thr Lys Ser Arg
 65 70 74

<210> 3717
 <211> 187
 <212> PRT
 <213> Homo sapiens

<400> 3717
 Gly Ala Gly Cys Thr Ser Pro Gly Leu Trp Ala Arg Lys Ala Ala Ala
 1 5 10 15
 Arg Cys Leu Pro Thr Tyr Pro Ser Arg Ala Gln Pro Ser Asn Val Gly
 20 25 30
 Arg Arg Arg Arg Arg Arg Pro Gly Leu Gly Ala Leu Ala Ala Gly Val
 35 40 45
 Pro Ala Met Ala Glu Ser Val Glu Arg Leu Gln Gln Arg Val Gln Glu
 50 55 60
 Leu Glu Arg Glu Leu Ala Gln Glu Arg Ser Leu Gln Val Pro Arg Ser
 65 70 75 80
 Gly Asp Gly Gly Gly Gly Arg Val Arg Ile Glu Lys Met Ser Ser Glu
 85 90 95
 Val Val Asp Ser Asn Pro Tyr Ser Arg Leu Met Ala Leu Lys Arg Met
 100 105 110
 Gly Ile Val Ser Asp Tyr Glu Lys Ile Arg Thr Phe Ala Val Ala Ile
 115 120 125
 Val Gly Val Gly Gly Val Gly Ser Val Thr Ala Glu Met Leu Thr Arg
 130 135 140
 Cys Gly Ile Gly Lys Leu Leu Leu Phe Asp Tyr Asp Lys Val Glu Leu
 145 150 155 160
 Ala Asn Met Asn Arg Leu Phe Phe Gln Pro His Gln Ala Gly Leu Ser
 165 170 175
 Lys Val Gln Ala Ala Gly His Thr Pro Glu Glu
 180 185 187

<210> 3718
 <211> 197
 <212> PRT
 <213> Homo sapiens

<400> 3718
 Arg Gly Ala Gly Gly Arg Ala Gly Gly Arg Ala Asp Gly Gln Pro Asn

1	5	10	15												
Met	Ala	Asp	Gln	Arg	Gln	Arg	Ser	Leu	Ser	Thr	Ser	Gly	Glu	Ser	Leu
	20							25					30		
Tyr	His	Val	Leu	Gly	Leu	Asp	Lys	Asn	Ala	Thr	Ser	Asp	Asp	Ile	Lys
	35						40					45			
Lys	Ser	Tyr	Arg	Lys	Leu	Ala	Leu	Lys	Tyr	His	Pro	Asp	Lys	Asn	Pro
	50					55					60				
Asp	Asn	Pro	Glu	Ala	Ala	Asp	Lys	Phe	Lys	Glu	Ile	Asn	Asn	Ala	His
	65				70					75					80
Ala	Ile	Leu	Thr	Asp	Ala	Thr	Lys	Arg	Asn	Ile	Tyr	Asp	Lys	Tyr	Gly
			85						90					95	
Ser	Leu	Gly	Leu	Tyr	Val	Ala	Glu	Gln	Phe	Gly	Glu	Glu	Asn	Val	Asn
	100							105					110		
Thr	Tyr	Phe	Val	Leu	Ser	Ser	Trp	Trp	Ala	Lys	Ala	Leu	Phe	Val	Phe
	115						120					125			
Cys	Gly	Leu	Leu	Thr	Cys	Cys	Tyr	Cys	Cys	Cys	Cys	Leu	Cys	Cys	Cys
	130					135					140				
Phe	Asn	Cys	Cys	Cys	Gly	Lys	Cys	Lys	Pro	Lys	Ala	Pro	Glu	Gly	Glu
	145				150					155					160
Glu	Thr	Glu	Phe	Tyr	Val	Ser	Pro	Glu	Asp	Leu	Glu	Ala	Gln	Leu	Gln
			165						170					175	
Ser	Asp	Glu	Arg	Glu	Ala	Thr	Asp	Thr	Pro	Ile	Val	Ile	Gln	Pro	Ala
		180						185					190		
Ser	Ala	Thr	Glu	Pro											
	195			197											

<210> 3719

<211> 727

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(723)

<223> Xaa = any amino acid or nothing

<400> 3719

Ser	Gly	Gly	Val	Arg	Met	Gly	Ser	Arg	Ala	Asp	Gly	Pro	Arg	Thr	Ser
1				5					10					15	
Gly	His	Val	Thr	Gly	Lys	Met	Ala	Val	Phe	Pro	Trp	His	Ser	Arg	Asn
	20						25					30			
Arg	Asn	Tyr	Lys	Ala	Glu	Phe	Ala	Ser	Cys	Arg	Leu	Glu	Ala	Val	Pro
	35					40					45				
Leu	Glu	Phe	Gly	Asp	Tyr	His	Pro	Leu	Lys	Pro	Ile	Thr	Val	Thr	Glu
	50					55					60				
Ser	Lys	Thr	Lys	Lys	Val	Asn	Arg	Lys	Gly	Ser	Thr	Ser	Ser	Thr	Ser
	65				70					75				80	
Ser	Ser	Ser	Ser	Ser	Ser	Val	Val	Asp	Pro	Leu	Ser	Ser	Val	Leu	Asp
			85					90					95		
Gly	Thr	Asp	Pro	Leu	Ser	Met	Phe	Ala	Ala	Thr	Ala	Asp	Pro	Ala	Ala
	100						105						110		
Leu	Ala	Ala	Ala	Met	Asp	Ser	Ser	Arg	Arg	Lys	Arg	Asp	Arg	Asp	Asp
	115						120					125			
Asn	Ser	Val	Val	Gly	Ser	Asp	Phe	Glu	Pro	Trp	Thr	Asn	Lys	Arg	Gly
	130					135					140				
Glu	Ile	Leu	Ala	Arg	Tyr	Thr	Thr	Thr	Glu	Lys	Leu	Ser	Ile	Asn	Leu
	145				150					155					160
Phe	Met	Gly	Ser	Glu	Lys	Gly	Lys	Ala	Gly	Thr	Ala	Thr	Leu	Ala	Met
			165					170					175		
Ser	Glu	Lys	Val	Arg	Thr	Arg	Leu	Glu	Glu	Leu	Asp	Asp	Phe	Glu	Glu
		180						185					190		
Gly	Ser	Gln	Lys	Glu	Leu	Leu	Asn	Leu	Thr	Gln	Gln	Asp	Tyr	Val	Asn

5469

705
His Ser Gly
723

710

715

720

<210> 3720
<211> 92
<212> PRT
<213> Homo sapiens

<400> 3720
Glu Asn Leu Phe Arg Ala Gly Phe Ala Phe Ser Leu Leu Arg Ser Ser
1 5 10 15
Phe Tyr Ile Ser Lys Thr Tyr Cys Ser Trp Phe Ser Asn Leu Ile Ser
20 25 30
Gly Ser Leu Ala Asp Phe Asn Ser Lys Gly Thr Arg Asp Tyr Ser Pro
35 40 45
Arg Gln Met Ala Val Arg Glu Lys Val Phe Asp Val Ile Ile Arg Cys
50 55 60
Phe Lys Arg His Gly Ala Glu Val Ile Asp Thr Pro Val Phe Glu Leu
65 70 75 80
Lys Val Arg Asn Gly Gln Glu Glu Thr Thr Trp
85 90 91

<210> 3721
<211> 103
<212> PRT
<213> Homo sapiens

<400> 3721
Pro Ser Cys Leu Thr Cys Val Gly His Cys Ser Ile Gly Gly Ser Cys
1 5 10 15
Thr Met Ile Gly Ile Met Met Pro Glu Cys His Cys Ser Leu His Met
20 25 30
Thr Gly Pro Arg Cys Glu Glu His Val Phe Ile Leu Gln Gln Pro Gly
35 40 45
His Ile Ala Ser Ile Leu Ile Pro Leu Leu Val Leu Leu Leu Ala
50 55 60
Leu Val Ala Gly Val Val Phe Trp His Lys Arg Arg Val Gln Gly Ala
65 70 75 80
Lys Gly Phe Gln His Gln Arg Met Thr Asn Gly Ala Met Asn Val Glu
85 90 95
Ile Gly Asn Pro Thr Tyr Lys
100 103

<210> 3722
<211> 216
<212> PRT
<213> Homo sapiens

<400> 3722
Met Glu Leu Val Ala Gly Cys Tyr Glu Gln Val Leu Phe Gly Phe Ala
1 5 10 15
Val His Pro Glu Pro Glu Ala Cys Gly Asp His Glu Gln Trp Thr Leu
20 25 30
Val Ala Asp Phe Thr His His Ala His Thr Ala Ser Leu Ser Ala Val


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      35      40      45
Ala Val Asn Ser Arg Phe Val Val Thr Gly Ser Lys Asp Glu Thr Ile
      50      55      60
His Ile Tyr Asp Met Lys Lys Lys Ile Glu His Gly Ala Leu Val His
      65      70      75      80
His Ser Gly Thr Ile Thr Cys Leu Lys Phe Tyr Gly Asn Arg His Leu
      85      90      95
Ile Ser Gly Ala Glu Asp Gly Leu Ile Cys Ile Trp Asp Ala Lys Lys
      100      105      110
Trp Glu Cys Leu Lys Ser Ile Lys Ala His Lys Gly Gln Val Thr Phe
      115      120      125
Leu Ser Ile His Pro Ser Gly Lys Leu Ala Leu Ser Val Gly Thr Asp
      130      135      140
Lys Thr Leu Arg Thr Trp Asn Leu Val Glu Gly Arg Ser Ala Phe Ile
      145      150      155      160
Lys Asn Ile Lys Gln Asn Ala His Ile Val Glu Trp Ser Pro Arg Gly
      165      170      175
Glu Gln Tyr Val Val Ile Ile Gln Asn Lys Ile Asp Ile Tyr Gln Leu
      180      185      190
Asp Thr Ala Ser Ile Ser Gly Thr Ile Thr Asn Glu Lys Arg Ile Ser
      195      200      205
Ser Val Lys Phe Leu Ser Glu Ser
      210      215 216

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<210> 3723
 <211> 68
 <212> PRT
 <213> Homo sapiens

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      <400> 3723
Met Glu Leu Ser Asp Asn Arg Arg Ser Gly Gly Leu Glu Gly Leu Ala
      1      5      10      15
Glu Lys Cys Pro Asn Leu Thr Tyr Leu Asn Leu Ser Gly Asn Lys Ile
      20      25      30
Lys Asp Leu Ser Thr Val Glu Ala Leu Val Ser Gly Thr Val Leu Ser
      35      40      45
Leu Asp Leu Leu Phe Leu Val Lys Phe Ser Glu Ile Cys Leu Cys Leu
      50      55      60
Leu Ile Ser Ile
      65      68

```

<210> 3724
 <211> 134
 <212> PRT
 <213> Homo sapiens

```

      <400> 3724
Val Asp Arg Gly Thr Glu Ala Trp Gln Arg Asp Pro Ala Phe Ser Gly
      1      5      10      15
Leu Gln Arg Val Gly Gly Val Asp Val Ser Phe Val Lys Gly Asp Ser
      20      25      30
Val Arg Ala Cys Ala Ser Leu Gly Val Leu Ser Phe Pro Glu Leu Glu
      35      40      45
Val Val Tyr Glu Glu Ser Arg Met Val Ser Leu Thr Ala Pro Tyr Val
      50      55      60
Ser Gly Phe Leu Ala Phe Arg Glu Val Pro Phe Leu Leu Glu Leu Val
      65      70      75      80
Gln Gln Leu Arg Glu Lys Glu Pro Gly Leu Met Pro Gln Val Leu Leu

```

			85					90				95			
Val	Asp	Gly	Asn	Gly	Val	Leu	His	His	Arg	Gly	Phe	Gly	Val	Ala	Cys
			100					105					110		
His	Leu	Gly	Val	Leu	Thr	Asp	Leu	Pro	Cys	Val	Gly	Val	Ala	Lys	Lys
			115				120					125			
Leu	Leu	Gln	Val	Asp	Gly										
			130				134								

<210> 3725

<211> 134

<212> PRT

<213> Homo sapiens

<400> 3725

Val	Asp	Arg	Gly	Thr	Glu	Ala	Trp	Gln	Arg	Asp	Pro	Ala	Phe	Ser	Gly
1				5					10					15	
Leu	Gln	Arg	Val	Gly	Gly	Val	Asp	Val	Ser	Phe	Val	Lys	Gly	Asp	Ser
			20				25						30		
Val	Arg	Ala	Cys	Ala	Ser	Leu	Gly	Val	Leu	Ser	Phe	Pro	Glu	Leu	Glu
		35					40					45			
Val	Val	Tyr	Glu	Glu	Ser	Arg	Met	Val	Ser	Leu	Thr	Ala	Pro	Tyr	Val
	50					55					60				
Ser	Gly	Phe	Leu	Ala	Phe	Arg	Glu	Val	Pro	Phe	Leu	Leu	Glu	Leu	Val
	65				70					75				80	
Gln	Gln	Leu	Arg	Glu	Lys	Glu	Pro	Gly	Leu	Met	Pro	Gln	Val	Leu	Leu
				85				90					95		
Val	Asp	Gly	Asn	Gly	Val	Leu	His	His	Arg	Gly	Phe	Gly	Val	Ala	Cys
			100					105					110		
His	Leu	Gly	Val	Leu	Thr	Asp	Leu	Pro	Cys	Val	Gly	Val	Ala	Lys	Lys
			115				120					125			
Leu	Leu	Gln	Val	Asp	Gly										
			130				134								

<210> 3726

<211> 144

<212> PRT

<213> Homo sapiens

<400> 3726

Ser	Ser	Asp	Asp	Arg	Ser	Leu	Phe	Arg	Arg	Leu	Lys	Leu	Asn	Tyr	Ala
1				5					10					15	
Ile	Phe	Asp	Glu	Gly	His	Met	Leu	Lys	Asn	Met	Gly	Ser	Ile	Arg	Tyr
			20					25					30		
Gln	His	Leu	Met	Thr	Ile	Asn	Ala	Asn	Asn	Arg	Leu	Leu	Leu	Thr	Gly
			35				40					45			
Thr	Pro	Val	Gln	Asn	Asn	Leu	Leu	Glu	Leu	Met	Ser	Leu	Leu	Asn	Phe
	50					55					60				
Val	Met	Pro	His	Met	Phe	Ser	Ser	Ser	Thr	Ser	Glu	Ile	Arg	Arg	Met
	65				70					75				80	
Phe	Ser	Ser	Lys	Thr	Lys	Ser	Ala	Asp	Glu	Gln	Ser	Ile	Tyr	Glu	Lys
				85				90					95		
Glu	Arg	Ile	Ala	His	Ala	Lys	Gln	Ile	Ile	Lys	Pro	Phe	Ile	Leu	Arg
			100					105					110		
Arg	Val	Lys	Glu	Glu	Val	Leu	Lys	Gln	Leu	Pro	Pro	Lys	Lys	Asp	Arg
			115				120					125			
Ile	Glu	Leu	Cys	Ala	Met	Ser	Glu	Lys	Gln	Glu	Gln	Leu	Tyr	Leu	Gly
			130				135				140				144

<210> 3727

<211> 126

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(126)

<223> Xaa = any amino acid or nothing

<400> 3727

```

Arg Ile Pro Arg Gly Lys Ala Cys Xaa Thr Val Leu Gly Arg Ser Thr
 1           5           10           15
Gly Glu Leu Glu Gly Phe Ala Ser Ser Arg Leu Pro Pro Gln Pro Cys
          20           25           30
Gly Trp Gly Gln Ser Ser Asp Leu Leu Ser Arg Ile Asp Leu Asp Glu
          35           40           45
Leu Met Lys Lys Asp Glu Pro Pro Leu Asp Phe Pro Asp Thr Leu Glu
          50           55           60
Gly Phe Glu Tyr Ala Phe Asn Glu Lys Gly Gln Leu Arg His Ile Lys
          65           70           75           80
Thr Gly Glu Pro Phe Val Phe Asn Tyr Arg Glu His Leu His Arg Trp
          85           90           95
Asn Gln Lys Arg Tyr Glu Ala Leu Gly Glu Ile Ile Thr Lys Tyr Val
          100          105          110
Tyr Glu Leu Leu Glu Lys Asp Cys Asn Ser Lys Lys Val Ser
          115          120          125 126

```

<210> 3728

<211> 819

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(815)

<223> Xaa = any amino acid or nothing

<400> 3728

```

Glu Ile Ala Gly Ala Ala Ala Glu Asn Met Leu Gly Ser Leu Leu Cys
 1           5           10           15
Leu Pro Gly Ser Gly Ser Val Leu Leu Asp Pro Cys Thr Gly Ser Thr
          20           25           30
Ile Ser Glu Thr Thr Ser Glu Ala Trp Ser Val Glu Val Leu Pro Ser
          35           40           45
Asp Ser Glu Ala Pro Asp Leu Lys Gln Glu Glu Arg Leu Gln Glu Leu
          50           55           60
Glu Ser Cys Ser Gly Leu Gly Ser Thr Ser Asp Asp Thr Asp Val Arg
          65           70           75           80
Glu Val Ser Ser Arg Pro Ser Thr Pro Gly Leu Ser Val Val Ser Gly
          85           90           95
Ile Ser Ala Thr Ser Glu Asp Ile Pro Asn Lys Ile Glu Asp Leu Arg
          100          105          110
Ser Glu Cys Ser Ser Asp Phe Gly Gly Lys Asp Ser Val Thr Ser Pro
          115          120          125
Asp Met Asp Glu Ile Thr His Asp Phe Leu Tyr Ile Leu Gln Pro Lys
          130          135          140
Gln His Phe Gln His Ile Glu Ala Glu Ala Asp Met Arg Ile Gln Leu

```

145		150		155		160
Ser Ser Ser Ala	His Gln Leu Thr Ser	Pro Pro Ser Gln Ser	Glu Ser			
	165	170	175			
Leu Leu Ala Met	Phe Asp Pro Leu Ser	Ser His Glu Gly Ala	Ser Ala			
	180	185	190			
Val Val Arg Pro	Lys Val His Tyr Ala	Arg Pro Ser His	Pro Pro Pro			
	195	200	205			
Asp Pro Pro Ile	Leu Glu Gly Ala	Val Gly Gly Asn	Glu Ala Arg Leu			
	210	215	220			
Pro Asn Phe Gly	Ser Pro Met Phe	Xaa Leu Pro Ala	Glu Met Glu Ala			
	225	230	235			240
Phe Lys Gln Arg	His Ser Tyr Thr	Pro Glu Arg Leu	Val Arg Ser Arg			
	245	250	255			
Ser Ser Asp Ile	Val Ser Ser Val	Arg Arg Pro Met	Ser Asp Pro Ser			
	260	265	270			
Trp Asn Arg Arg	Pro Gly Asn Glu	Glu Arg Glu Leu	Pro Pro Ala Ala			
	275	280	285			
Ala Ile Gly Ala	Thr Ser Leu Val	Ala Ala Pro His	Ser Ser Ser Ser			
	290	295	300			
Ser Pro Ser Lys	Asp Ser Ser Arg	Gly Glu Thr Glu	Glu Arg Lys Asp			
	305	310	315			320
Ser Asp Asp Glu	Lys Ser Asp Arg	Asn Arg Pro Trp	Trp Arg Lys Arg			
	325	330	335			
Phe Val Ser Ala	Met Pro Lys Ala	Pro Ile Pro Phe	Arg Lys Lys Glu			
	340	345	350			
Lys Gln Glu Lys	Asp Lys Asp Asp	Leu Gly Pro Asp	Arg Phe Ser Thr			
	355	360	365			
Leu Thr Asp Asp	Pro Ser Pro Arg	Leu Ser Ala Gln	Ala Gln Val Ala			
	370	375	380			
Glu Asp Ile Leu	Asp Lys Tyr Arg	Asn Ala Ile Lys	Arg Thr Ser Pro			
	385	390	395			400
Ser Asp Gly Ala	Met Ala Asn Tyr	Glu Ser Thr Glu	Val Met Gly Asp			
	405	410	415			
Gly Glu Ser Ala	His Asp Ser Pro	Arg Asp Glu Ala	Leu Gln Asn Ile			
	420	425	430			
Ser Ala Asp Asp	Leu Pro Asp Ser	Ala Ser Gln Ala	Ala His Pro Gln			
	435	440	445			
Asp Ser Ala Phe	Ser Tyr Arg Asp	Ala Lys Lys Lys	Leu Arg Leu Ala			
	450	455	460			
Leu Cys Ser Ala	Asp Ser Val Ala	Phe Pro Val Leu	Thr His Ser Thr			
	465	470	475			480
Arg Asn Gly Leu	Pro Asp His Thr	Asp Pro Glu Asp	Asn Glu Ile Val			
	485	490	495			
Cys Phe Leu Lys	Val Gln Ile Ala	Glu Ala Ile Asn	Leu Gln Asp Lys			
	500	505	510			
Asn Leu Met Ala	Gln Leu Gln Glu	Thr Met Arg Cys	Val Cys Arg Phe			
	515	520	525			
Asp Asn Arg Thr	Cys Arg Lys Leu	Leu Ala Ser Ile	Ala Glu Asp Tyr			
	530	535	540			
Arg Lys Arg Ala	Pro Tyr Ile Ala	Tyr Leu Thr Arg	Cys Arg Gln Gly			
	545	550	555			560
Leu Gln Thr Thr	Gln Ala His Leu	Glu Arg Leu Leu	Gln Arg Val Leu			
	565	570	575			
Arg Asp Lys Glu	Val Ala Asn Arg	Tyr Phe Thr Thr	Val Cys Val Arg			
	580	585	590			
Leu Leu Leu Glu	Ser Lys Glu Lys	Lys Ile Arg Glu	Phe Ile Gln Asp			
	595	600	605			
Phe Gln Lys Leu	Thr Ala Ala Asp	Asp Lys Thr Ala	Gln Val Glu Asp			
	610	615	620			
Phe Leu Gln Phe	Leu Tyr Gly Ala	Met Ala Gln Asp	Val Ile Trp Gln			
	625	630	635			640
Asn Ala Ser Glu	Glu Gln Leu Gln	Asp Ala Gln Leu	Ala Ile Glu Arg			
	645	650	655			
Ser Val Met Asn	Arg Ile Phe Lys	Leu Ala Phe Tyr	Pro Asn Gln Asp			

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<210> 3729
<211> 819
<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(815)
<223> Xaa = any amino acid or nothing
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5475

				245					250					255	
Ser	Ser	Asp	Ile	Val	Ser	Ser	Val	Arg	Arg	Pro	Met	Ser	Asp	Pro	Ser
			260					265					270		
Trp	Asn	Arg	Arg	Pro	Gly	Asn	Glu	Glu	Arg	Glu	Leu	Pro	Pro	Ala	Ala
		275					280					285			
Ala	Ile	Gly	Ala	Thr	Ser	Leu	Val	Ala	Ala	Pro	His	Ser	Ser	Ser	Ser
	290					295					300				
Ser	Pro	Ser	Lys	Asp	Ser	Ser	Arg	Gly	Glu	Thr	Glu	Glu	Arg	Lys	Asp
305					310					315					320
Ser	Asp	Asp	Glu	Lys	Ser	Asp	Arg	Asn	Arg	Pro	Trp	Trp	Arg	Lys	Arg
				325					330					335	
Phe	Val	Ser	Ala	Met	Pro	Lys	Ala	Pro	Ile	Pro	Phe	Arg	Lys	Lys	Glu
			340					345					350		
Lys	Gln	Glu	Lys	Asp	Lys	Asp	Asp	Leu	Gly	Pro	Asp	Arg	Phe	Ser	Thr
		355					360					365			
Leu	Thr	Asp	Asp	Pro	Ser	Pro	Arg	Leu	Ser	Ala	Gln	Ala	Gln	Val	Ala
	370					375					380				
Glu	Asp	Ile	Leu	Asp	Lys	Tyr	Arg	Asn	Ala	Ile	Lys	Arg	Thr	Ser	Pro
385					390					395					400
Ser	Asp	Gly	Ala	Met	Ala	Asn	Tyr	Glu	Ser	Thr	Glu	Val	Met	Gly	Asp
				405					410					415	
Gly	Glu	Ser	Ala	His	Asp	Ser	Pro	Arg	Asp	Glu	Ala	Leu	Gln	Asn	Ile
			420					425					430		
Ser	Ala	Asp	Asp	Leu	Pro	Asp	Ser	Ala	Ser	Gln	Ala	Ala	His	Pro	Gln
		435					440					445			
Asp	Ser	Ala	Phe	Ser	Tyr	Arg	Asp	Ala	Lys	Lys	Lys	Leu	Arg	Leu	Ala
	450					455					460				
Leu	Cys	Ser	Ala	Asp	Ser	Val	Ala	Phe	Pro	Val	Leu	Thr	His	Ser	Thr
465				470						475					480
Arg	Asn	Gly	Leu	Pro	Asp	His	Thr	Asp	Pro	Glu	Asp	Asn	Glu	Ile	Val
				485					490					495	
Cys	Phe	Leu	Lys	Val	Gln	Ile	Ala	Glu	Ala	Ile	Asn	Leu	Gln	Asp	Lys
			500					505					510		
Asn	Leu	Met	Ala	Gln	Leu	Gln	Glu	Thr	Met	Arg	Cys	Val	Cys	Arg	Phe
		515					520					525			
Asp	Asn	Arg	Thr	Cys	Arg	Lys	Leu	Leu	Ala	Ser	Ile	Ala	Glu	Asp	Tyr
	530					535					540				
Arg	Lys	Arg	Ala	Pro	Tyr	Ile	Ala	Tyr	Leu	Thr	Arg	Cys	Arg	Gln	Gly
545					550					555					560
Leu	Gln	Thr	Thr	Gln	Ala	His	Leu	Glu	Arg	Leu	Leu	Gln	Arg	Val	Leu
				565					570					575	
Arg	Asp	Lys	Glu	Val	Ala	Asn	Arg	Tyr	Phe	Thr	Thr	Val	Cys	Val	Arg
			580					585					590		
Leu	Leu	Leu	Glu	Ser	Lys	Glu	Lys	Lys	Ile	Arg	Glu	Phe	Ile	Gln	Asp
		595					600					605			
Phe	Gln	Lys	Leu	Thr	Ala	Ala	Asp	Asp	Lys	Thr	Ala	Gln	Val	Glu	Asp
	610					615					620				
Phe	Leu	Gln	Phe	Leu	Tyr	Gly	Ala	Met	Ala	Gln	Asp	Val	Ile	Trp	Gln
625					630					635					640
Asn	Ala	Ser	Glu	Glu	Gln	Leu	Gln	Asp	Ala	Gln	Leu	Ala	Ile	Glu	Arg
				645					650					655	
Ser	Val	Met	Asn	Arg	Ile	Phe	Lys	Leu	Ala	Phe	Tyr	Pro	Asn	Gln	Asp
			660					665					670		
Gly	Asp	Ile	Leu	Arg	Asp	Gln	Val	Leu	His	Glu	His	Ile	Gln	Arg	Leu
		675					680					685			
Ser	Lys	Val	Val	Thr	Ala	Asn	His	Arg	Ala	Leu	Gln	Ile	Pro	Glu	Val
	690					695					700				
Tyr	Leu	Arg	Glu	Ala	Pro	Trp	Pro	Ser	Ala	Gln	Ser	Glu	Ile	Arg	Thr
705					710					715					720
Ile	Ser	Ala	Tyr	Lys	Thr	Pro	Arg	Asp	Lys	Val	Gln	Cys	Ile	Leu	Arg
				725					730					735	
Met	Cys	Ser	Thr	Ile	Met	Asn	Leu	Leu	Ser	Leu	Ala	Asn	Glu	Asp	Ser
			740					745					750		
Val	Pro	Gly	Ala	Asp	Asp	Phe	Val	Pro	Val	Leu	Val	Phe	Val	Leu	Ile

	755		760		765
Lys	Ala Asn Pro Pro Cys	Leu Leu Ser Thr Val	Gln Tyr Ile Ser Ser		
	770	775	780		
Phe	Tyr Ala Ser Cys Leu Ser Gly Glu Glu	Ser Tyr Trp Trp Met Gln			
785		790	795	800	
Phe	Thr Ala Ala Val Glu Phe Ile Lys Thr	Ile Asp Asp Arg Lys			
	805	810	815		

<210> 3730

<211> 819

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(815)

<223> Xaa = any amino acid or nothing

<400> 3730

Glu	Ile	Ala	Gly	Ala	Ala	Glu	Asn	Met	Leu	Gly	Ser	Leu	Leu	Cys
1			5			10			15					
Leu	Pro	Gly	Ser	Gly	Ser	Val	Leu	Leu	Asp	Pro	Cys	Thr	Gly	Ser
		20				25			30					
Ile	Ser	Glu	Thr	Thr	Ser	Glu	Ala	Trp	Ser	Val	Glu	Val	Leu	Pro
		35				40			45					
Asp	Ser	Glu	Ala	Pro	Asp	Leu	Lys	Gln	Glu	Glu	Arg	Leu	Gln	Glu
		50				55			60					
Glu	Ser	Cys	Ser	Gly	Leu	Gly	Ser	Thr	Ser	Asp	Asp	Thr	Asp	Val
65				70				75						80
Glu	Val	Ser	Ser	Arg	Pro	Ser	Thr	Pro	Gly	Leu	Ser	Val	Val	Ser
				85				90						95
Ile	Ser	Ala	Thr	Ser	Glu	Asp	Ile	Pro	Asn	Lys	Ile	Glu	Asp	Leu
		100					105					110		
Ser	Glu	Cys	Ser	Ser	Asp	Phe	Gly	Gly	Lys	Asp	Ser	Val	Thr	Ser
		115				120			125					
Asp	Met	Asp	Glu	Ile	Thr	His	Asp	Phe	Leu	Tyr	Ile	Leu	Gln	Pro
		130				135			140					
Gln	His	Phe	Gln	His	Ile	Glu	Ala	Glu	Ala	Asp	Met	Arg	Ile	Gln
145					150				155					160
Ser	Ser	Ser	Ala	His	Gln	Leu	Thr	Ser	Pro	Ser	Gln	Ser	Glu	Ser
				165				170					175	
Leu	Leu	Ala	Met	Phe	Asp	Pro	Leu	Ser	Ser	His	Glu	Gly	Ala	Ser
		180					185					190		
Val	Val	Arg	Pro	Lys	Val	His	Tyr	Ala	Arg	Pro	Ser	His	Pro	Pro
		195					200					205		
Asp	Pro	Pro	Ile	Leu	Glu	Gly	Ala	Val	Gly	Gly	Asn	Glu	Ala	Arg
		210				215			220					
Pro	Asn	Phe	Gly	Ser	Pro	Met	Phe	Xaa	Leu	Pro	Ala	Glu	Met	Glu
225					230				235					240
Phe	Lys	Gln	Arg	His	Ser	Tyr	Thr	Pro	Glu	Arg	Leu	Val	Arg	Ser
				245				250					255	
Ser	Ser	Asp	Ile	Val	Ser	Ser	Val	Arg	Arg	Pro	Met	Ser	Asp	Pro
		260					265					270		
Trp	Asn	Arg	Arg	Pro	Gly	Asn	Glu	Glu	Arg	Glu	Leu	Pro	Pro	Ala
		275				280			285					
Ala	Ile	Gly	Ala	Thr	Ser	Leu	Val	Ala	Ala	Pro	His	Ser	Ser	Ser
		290				295			300					
Ser	Pro	Ser	Lys	Asp	Ser	Ser	Arg	Gly	Glu	Thr	Glu	Glu	Arg	Lys
305					310				315					320
Ser	Asp	Asp	Glu	Lys	Ser	Asp	Arg	Asn	Arg	Pro	Trp	Trp	Arg	Lys
				325				330					335	
Phe	Val	Ser	Ala	Met	Pro	Lys	Ala	Pro	Ile	Pro	Phe	Arg	Lys	Lys

			340					345					350				
Lys	Gln	Glu	Lys	Asp	Lys	Asp	Asp	Leu	Gly	Pro	Asp	Arg	Phe	Ser	Thr		
			355					360					365				
Leu	Thr	Asp	Asp	Pro	Ser	Pro	Arg	Leu	Ser	Ala	Gln	Ala	Gln	Val	Ala		
			370					375					380				
Glu	Asp	Ile	Leu	Asp	Lys	Tyr	Arg	Asn	Ala	Ile	Lys	Arg	Thr	Ser	Pro		
385					390					395					400		
Ser	Asp	Gly	Ala	Met	Ala	Asn	Tyr	Glu	Ser	Thr	Glu	Val	Met	Gly	Asp		
				405						410				415			
Gly	Glu	Ser	Ala	His	Asp	Ser	Pro	Arg	Asp	Glu	Ala	Leu	Gln	Asn	Ile		
			420					425					430				
Ser	Ala	Asp	Asp	Leu	Pro	Asp	Ser	Ala	Ser	Gln	Ala	Ala	His	Pro	Gln		
			435					440					445				
Asp	Ser	Ala	Phe	Ser	Tyr	Arg	Asp	Ala	Lys	Lys	Lys	Leu	Arg	Leu	Ala		
			450				455					460					
Leu	Cys	Ser	Ala	Asp	Ser	Val	Ala	Phe	Pro	Val	Leu	Thr	His	Ser	Thr		
465					470					475					480		
Arg	Asn	Gly	Leu	Pro	Asp	His	Thr	Asp	Pro	Glu	Asp	Asn	Glu	Ile	Val		
				485				490						495			
Cys	Phe	Leu	Lys	Val	Gln	Ile	Ala	Glu	Ala	Ile	Asn	Leu	Gln	Asp	Lys		
			500					505					510				
Asn	Leu	Met	Ala	Gln	Leu	Gln	Glu	Thr	Met	Arg	Cys	Val	Cys	Arg	Phe		
			515					520					525				
Asp	Asn	Arg	Thr	Cys	Arg	Lys	Leu	Leu	Ala	Ser	Ile	Ala	Glu	Asp	Tyr		
			530			535						540					
Arg	Lys	Arg	Ala	Pro	Tyr	Ile	Ala	Tyr	Leu	Thr	Arg	Cys	Arg	Gln	Gly		
545					550					555					560		
Leu	Gln	Thr	Thr	Gln	Ala	His	Leu	Glu	Arg	Leu	Leu	Gln	Arg	Val	Leu		
				565				570						575			
Arg	Asp	Lys	Glu	Val	Ala	Asn	Arg	Tyr	Phe	Thr	Thr	Val	Cys	Val	Arg		
			580					585					590				
Leu	Leu	Leu	Glu	Ser	Lys	Glu	Lys	Lys	Ile	Arg	Glu	Phe	Ile	Gln	Asp		
			595				600					605					
Phe	Gln	Lys	Leu	Thr	Ala	Ala	Asp	Asp	Lys	Thr	Ala	Gln	Val	Glu	Asp		
			610			615					620						
Phe	Leu	Gln	Phe	Leu	Tyr	Gly	Ala	Met	Ala	Gln	Asp	Val	Ile	Trp	Gln		
625					630					635					640		
Asn	Ala	Ser	Glu	Glu	Gln	Leu	Gln	Asp	Ala	Gln	Leu	Ala	Ile	Glu	Arg		
				645				650						655			
Ser	Val	Met	Asn	Arg	Ile	Phe	Lys	Leu	Ala	Phe	Tyr	Pro	Asn	Gln	Asp		
			660					665					670				
Gly	Asp	Ile	Leu	Arg	Asp	Gln	Val	Leu	His	Glu	His	Ile	Gln	Arg	Leu		
			675				680					685					
Ser	Lys	Val	Val	Thr	Ala	Asn	His	Arg	Ala	Leu	Gln	Ile	Pro	Glu	Val		
			690			695					700						
Tyr	Leu	Arg	Glu	Ala	Pro	Trp	Pro	Ser	Ala	Gln	Ser	Glu	Ile	Arg	Thr		
705					710					715					720		
Ile	Ser	Ala	Tyr	Lys	Thr	Pro	Arg	Asp	Lys	Val	Gln	Cys	Ile	Leu	Arg		
				725				730						735			
Met	Cys	Ser	Thr	Ile	Met	Asn	Leu	Leu	Ser	Leu	Ala	Asn	Glu	Asp	Ser		
			740					745					750				
Val	Pro	Gly	Ala	Asp	Asp	Phe	Val	Pro	Val	Leu	Val	Phe	Val	Leu	Ile		
			755				760					765					
Lys	Ala	Asn	Pro	Pro	Cys	Leu	Leu	Ser	Thr	Val	Gln	Tyr	Ile	Ser	Ser		
			770			775					780						
Phe	Tyr	Ala	Ser	Cys	Leu	Ser	Gly	Glu	Glu	Ser	Tyr	Trp	Trp	Met	Gln		
785					790					795					800		
Phe	Thr	Ala	Ala	Val	Glu	Phe	Ile	Lys	Thr	Ile	Asp	Asp	Arg	Lys			
				805				810						815			

<210> 3731

<211> 437

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(434)

<223> Xaa = any amino acid or nothing

<400> 3731

Val	Asn	Thr	Ala	Met	His	Glu	Ala	Lys	Leu	Met	Glu	Glu	Cys	Asp	Glu
1				5					10					15	
Leu	Val	Glu	Ile	Ile	Gln	Gln	Arg	Lys	Gln	Met	Ile	Ala	Val	Lys	Ile
			20					25					30		
Lys	Glu	Thr	Lys	Val	Met	Lys	Leu	Arg	Lys	Leu	Ala	Gln	Gln	Val	Ala
		35					40					45			
Asn	Cys	Arg	Gln	Cys	Leu	Glu	Arg	Ser	Thr	Val	Leu	Ile	Asn	Gln	Ala
	50					55				60					
Glu	His	Ile	Leu	Lys	Glu	Asn	Asp	Gln	Ala	Arg	Phe	Leu	Gln	Ser	Ala
65					70				75					80	
Lys	Asn	Ile	Ala	Glu	Arg	Val	Ala	Met	Ala	Thr	Ala	Ser	Ser	Gln	Val
				85					90					95	
Leu	Ile	Pro	Asp	Ile	Asn	Phe	Asn	Asp	Ala	Phe	Glu	Asn	Phe	Ala	Leu
			100					105					110		
Asp	Phe	Ser	Arg	Glu	Lys	Lys	Leu	Leu	Glu	Gly	Leu	Asp	Tyr	Leu	Thr
		115					120					125			
Ala	Pro	Asn	Pro	Pro	Ser	Ile	Arg	Glu	Glu	Leu	Cys	Thr	Ala	Ser	His
	130					135					140				
Asp	Thr	Ile	Thr	Val	His	Trp	Ile	Ser	Asp	Asp	Glu	Phe	Ser	Ile	Ser
145					150					155				160	
Ser	Tyr	Glu	Leu	Gln	Tyr	Thr	Ile	Phe	Thr	Gly	Gln	Ala	Asn	Phe	Ile
			165					170					175		
Ser	Leu	Tyr	Asn	Ser	Val	Asp	Ser	Trp	Met	Ile	Val	Pro	Asn	Ile	Lys
			180					185					190		
Gln	Asn	His	Tyr	Thr	Val	His	Gly	Leu	Gln	Ser	Gly	Thr	Arg	Tyr	Ile
	195						200					205			
Phe	Ile	Val	Lys	Ala	Ile	Asn	Gln	Ala	Gly	Ser	Arg	Asn	Ser	Glu	Pro
	210					215					220				
Thr	Arg	Leu	Lys	Thr	Asn	Ser	Gln	Pro	Phe	Lys	Leu	Asp	Pro	Lys	Met
225					230					235				240	
Thr	His	Lys	Lys	Leu	Lys	Ile	Ser	Asn	Asp	Gly	Leu	Gln	Met	Glu	Lys
			245						250					255	
Asp	Glu	Ser	Ser	Leu	Lys	Lys	Ser	His	Thr	Pro	Glu	Arg	Phe	Ser	Gly
			260					265					270		
Thr	Gly	Cys	Tyr	Val	Tyr	Gly	Val	Leu	His	Asn	Ser	Asp	Asn	Ser	Xaa
		275					280					285			
Met	Phe	Ile	Ser	Leu	Ser	Phe	Pro	Leu	Ser	His	Arg	Tyr	Ala	Ile	Gly
	290					295					300				
Ile	Ala	Tyr	Lys	Ser	Ala	Pro	Lys	Asn	Glu	Trp	Ile	Gly	Lys	Asn	Ala
305					310					315				320	
Ser	Ser	Trp	Val	Phe	Ser	Arg	Cys	Asn	Ser	Asn	Phe	Val	Val	Arg	His
			325						330					335	
Asn	Asn	Lys	Glu	Met	Leu	Val	Asp	Val	Pro	Pro	His	Leu	Lys	Arg	Leu
			340					345					350		
Gly	Val	Leu	Leu	Asp	Tyr	Asp	Asn	Tyr	Asn	Met	Leu	Ser	Phe	Tyr	Asp
	355					360					365				
Pro	Ala	Asn	Ser	Leu	His	Leu	His	Thr	Phe	Asp	Val	Thr	Phe	Ile	Leu
	370					375					380				
Pro	Val	Cys	Pro	Thr	Phe	Thr	Ile	Trp	Asn	Lys	Ser	Leu	Met	Ile	Leu
385					390					395				400	
Ser	Gly	Leu	Pro	Ala	Pro	Asp	Phe	Ile	Asp	Tyr	Pro	Glu	Arg	Gln	Glu
			405						410					415	
Cys	Asn	Cys	Arg	Pro	Gln	Glu	Ser	Pro	Tyr	Val	Ser	Gly	Met	Lys	Thr
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Cys	His														

434

<210> 3732

<211> 906

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(901)

<223> Xaa = any amino acid or nothing

<400> 3732

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Trp Trp Ser Gly Pro Lys Val Arg Thr Gln Ala Thr Thr Gly Ala Arg
           35           40           45
Pro Lys Thr Glu Thr Lys Ser Val Pro Ala Ala Arg Pro Lys Thr Glu
           50           55           60
Ala Gln Ala Met Ser Gly Ala Arg Pro Lys Thr Glu Val Gln Val Met
           65           70           75           80
Gly Gly Ala Arg Pro Lys Thr Glu Ala Gln Gly Ile Thr Gly Ala Arg
           85           90           95
Pro Lys Thr Asp Ala Arg Ala Val Gly Gly Ala Arg Ser Lys Thr Asp
           100          105          110
Ala Lys Ala Ile Pro Gly Ala Arg Pro Lys Asp Glu Ala Gln Ala Trp
           115          120          125
Ala Gln Ser Glu Phe Gly Thr Glu Ala Val Ser Gln Ala Glu Gly Val
           130          135          140
Ser Gln Thr Asn Ala Val Ala Trp Pro Leu Ala Thr Ala Glu Ser Gly
145          150          155          160
Ser Val Thr Lys Ser Lys Ala Cys Leu Trp Ile Glu Asn Xaa Ser Met
           165          170          175
Trp Met Pro Glu Thr Phe Pro Gly Thr Gln Gly Gln Lys Gly Ile Gln
           180          185          190
Pro Trp Phe Gly Pro Gly Glu Glu Thr Asn Met Gly Ser Trp Cys Tyr
           195          200          205
Ser Arg Pro Arg Ala Arg Glu Glu Ala Ser Asn Glu Ser Gly Phe Trp
           210          215          220
Ser Ala Asp Glu Thr Ser Thr Ala Ser Ser Phe Trp Thr Gly Glu Glu
225          230          235          240
Thr Ser Val Arg Ser Trp Pro Arg Glu Glu Ser Asn Thr Arg Ser Arg
           245          250          255
His Arg Ala Lys His Gln Thr Asn Pro Arg Ser Arg Pro Arg Ser Lys
           260          265          270
Gln Glu Ala Tyr Val Asp Ser Trp Ser Gly Ser Glu Asp Glu Ala Ser
           275          280          285
Asn Pro Phe Ser Phe Trp Val Gly Glu Asn Thr Asn Asn Leu Phe Arg
           290          295          300
Pro Arg Val Arg Glu Glu Ala Asn Ile Arg Ser Lys Leu Arg Thr Asn
305          310          315          320
Arg Glu Asp Cys Phe Glu Ser Glu Ser Glu Asp Glu Phe Tyr Lys Gln
           325          330          335
Ser Trp Val Leu Pro Gly Glu Glu Ala Asn Ile Asp Ser Gly Thr Glu
           340          345          350
Thr Lys Lys Ile Leu Ile Leu Pro Trp Lys Leu Arg Ala Gln Lys Asp
           355          360          365
Val Asp Ser Asp Arg Val Lys Gln Glu Pro Arg Phe Glu Glu Glu Val
           370          375          380
Ile Ile Gly Ser Trp Phe Trp Ala Glu Lys Glu Ala Ser Leu Glu Gly

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385					390					395				400	
Gly	Ala	Ser	Ala	Ile	Cys	Glu	Ser	Glu	Pro	Gly	Thr	Glu	Glu	Gly	Ala
				405					410					415	
Ile	Gly	Gly	Ser	Ala	Tyr	Trp	Ala	Glu	Glu	Lys	Ser	Ser	Leu	Gly	Ala
			420					425					430		
Val	Ala	Arg	Glu	Glu	Ala	Lys	Pro	Glu	Ser	Glu	Glu	Glu	Ala	Ile	Phe
		435					440					445			
Gly	Ser	Trp	Phe	Trp	Asp	Arg	Asp	Glu	Ala	Cys	Phe	Asp	Leu	Asn	Pro
	450				455						460				
Cys	Pro	Val	Tyr	Lys	Val	Ser	Asp	Arg	Phe	Arg	Asp	Ala	Ala	Glu	Glu
465				470					475					480	
Leu	Asn	Ala	Ser	Ser	Arg	Pro	Gln	Thr	Trp	Asp	Glu	Val	Thr	Val	Glu
			485					490						495	
Phe	Lys	Pro	Gly	Leu	Phe	His	Gly	Val	Gly	Phe	Arg	Ser	Thr	Ser	Pro
		500					505						510		
Phe	Gly	Ile	Pro	Glu	Glu	Ala	Ser	Glu	Met	Leu	Glu	Ala	Lys	Pro	Lys
	515						520					525			
Asn	Leu	Glu	Leu	Ser	Pro	Glu	Gly	Glu	Glu	Gln	Glu	Ser	Leu	Leu	Gln
	530					535					540				
Pro	Asp	Gln	Pro	Ser	Pro	Glu	Phe	Thr	Phe	Gln	Tyr	Asp	Pro	Ser	Tyr
545				550					555						560
Arg	Ser	Val	Arg	Glu	Ile	Arg	Glu	His	Leu	Arg	Ala	Arg	Glu	Ser	Ala
			565					570					575		
Glu	Ser	Glu	Ser	Trp	Ser	Cys	Ser	Cys	Ile	Gln	Cys	Glu	Leu	Lys	Ile
		580					585						590		
Gly	Ser	Glu	Glu	Phe	Glu	Glu	Phe	Leu	Leu	Leu	Met	Asp	Lys	Ile	Arg
	595					600					605				
Asp	Pro	Phe	Ile	His	Glu	Ile	Ser	Lys	Ile	Ala	Met	Gly	Met	Arg	Ser
	610				615					620					
Ala	Ser	Gln	Phe	Thr	Arg	Asp	Phe	Ile	Arg	Asp	Ser	Gly	Val	Val	Ser
625				630					635						640
Leu	Ile	Glu	Thr	Leu	Leu	Asn	Tyr	Pro	Ser	Ser	Arg	Val	Arg	Thr	Ser
			645					650						655	
Phe	Leu	Glu	Asn	Met	Ile	His	Met	Ala	Pro	Pro	Tyr	Pro	Asn	Leu	Asn
		660					665						670		
Met	Ile	Glu	Thr	Phe	Ile	Cys	Gln	Val	Cys	Glu	Glu	Thr	Leu	Ala	His
	675					680						685			
Ser	Val	Asp	Ser	Leu	Glu	Gln	Leu	Thr	Gly	Asn	Lys	Gly	Cys	Phe	Arg
	690				695						700				
His	Leu	Thr	Met	Thr	Ile	Asp	Tyr	His	Thr	Leu	Ile	Ala	Asn	Xaa	Tyr
705				710					715						720
Gly	Pro	Gly	Phe	Pro	Leu	Leu	Phe	Xaa	Pro	Gln	Ala	Gln	Cys	Gly	Glu
			725					730						735	
Thr	Lys	Phe	His	Val	Leu	Lys	Met	Leu	Leu	Asn	Leu	Ser	Glu	Asn	Pro
		740					745						750		
Ala	Val	Ala	Lys	Lys	Leu	Phe	Ser	Ala	Lys	Ala	Leu	Ser	Ile	Phe	Val
	755					760						765			
Gly	Leu	Phe	Asn	Ile	Glu	Glu	Thr	Asn	Asp	Asn	Ile	Gln	Ile	Val	Ile
	770				775						780				
Lys	Met	Phe	Gln	Asn	Ile	Ser	Asn	Ile	Ile	Lys	Ser	Gly	Lys	Met	Ser
785				790					795						800
Leu	Ile	Asp	Asp	Asp	Phe	Ser	Leu	Glu	Pro	Leu	Ile	Ser	Ala	Phe	Arg
			805					810						815	
Glu	Phe	Glu	Glu	Leu	Ala	Lys	Gln	Leu	Gln	Ala	Gln	Ile	Asp	Asn	Gln
		820					825						830		
Asn	Asp	Pro	Glu	Ala	Thr	Gly	Thr	Thr	Ala	Phe	Val	Gly	Lys	Gly	Asn
		835				840						845			
Asn	Pro	Ser	Ala	Asn	Arg	Glu	Arg	Leu	Ser	Pro	Ser	Val	Phe	Cys	Pro
	850					855						860			
Gly	Ala	Gln	Glu	Ala	Glu	Ser	Leu	Pro	Ala	Arg	Arg	Val	Arg	Gly	Glu
865				870					875						880
Glu	Gln	Arg	Leu	Leu	Leu	Glu	Glu	Val	Gly	Ala	Arg	Thr	Ala	Asp	Gly
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<210> 3733
 <211> 1091
 <212> PRT
 <213> Homo sapiens

<221> misc_feature
 <222> (1)...(1090)
 <223> Xaa = any amino acid or nothing

<400> 3733

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Thr	Gly	Ala	Arg	Ile	Asp	Arg	Glu	Lys	Leu	Cys	Ala	Gly	Ile	Pro	Arg
			20					25					30		
Asp	Glu	His	Cys	Phe	Tyr	Glu	Val	Glu	Val	Ala	Ile	Leu	Pro	Asp	Glu
		35					40					45			
Ile	Phe	Arg	Leu	Val	Lys	Ile	Arg	Phe	Leu	Ile	Glu	Asp	Ile	Asn	Asp
	50					55					60				
Asn	Ala	Pro	Leu	Phe	Pro	Ala	Thr	Val	Ile	Asn	Ile	Ser	Ile	Pro	Glu
	65				70					75					80
Asn	Ser	Ala	Ile	Asn	Ser	Lys	Tyr	Thr	Leu	Pro	Ala	Ala	Val	Asp	Pro
				85					90					95	
Asp	Val	Gly	Ile	Asn	Gly	Val	Gln	Asn	Tyr	Glu	Leu	Ile	Lys	Ser	Gln
		100					105						110		
Asn	Ile	Phe	Gly	Leu	Asp	Val	Ile	Glu	Thr	Pro	Gly	Gly	Asp	Lys	Met
	115						120					125			
Pro	Gln	Leu	Ile	Val	Gln	Lys	Glu	Leu	Asp	Arg	Glu	Glu	Lys	Asp	Thr
	130					135						140			
Tyr	Val	Met	Lys	Val	Lys	Val	Glu	Asp	Gly	Gly	Phe	Pro	Gln	Arg	Ser
145					150					155					160
Ser	Thr	Ala	Ile	Leu	Gln	Val	Ser	Val	Thr	Asp	Thr	Asn	Asp	Asn	His
				165					170					175	
Pro	Val	Phe	Lys	Glu	Thr	Glu	Ile	Glu	Val	Ser	Ile	Pro	Glu	Asn	Ala
		180						185					190		
Pro	Val	Gly	Thr	Ser	Val	Thr	Gln	Leu	His	Ala	Thr	Asp	Ala	Asp	Ile
	195						200					205			
Gly	Glu	Asn	Ala	Lys	Ile	His	Phe	Ser	Phe	Ser	Asn	Leu	Val	Ser	Asn
	210					215					220				
Ile	Ala	Arg	Arg	Leu	Phe	His	Leu	Asn	Ala	Thr	Thr	Gly	Leu	Ile	Thr
225					230					235					240
Ile	Lys	Glu	Pro	Leu	Asp	Arg	Glu	Glu	Thr	Pro	Asn	His	Lys	Leu	Leu
				245					250					255	
Val	Leu	Ala	Ser	Asp	Gly	Gly	Leu	Met	Pro	Ala	Arg	Ala	Met	Val	Leu
		260						265					270		
Val	Asn	Val	Thr	Asp	Val	Asn	Asp	Asn	Val	Pro	Ser	Ile	Asp	Ile	Arg
	275						280					285			
Tyr	Ile	Val	Asn	Pro	Val	Asn	Asp	Thr	Val	Val	Leu	Ser	Glu	Asn	Ile
	290					295					300				
Pro	Leu	Asn	Thr	Lys	Ile	Ala	Leu	Ile	Thr	Val	Thr	Asp	Lys	Asp	Ala
305					310					315					320
Asp	His	Asn	Gly	Arg	Val	Thr	Cys	Phe	Thr	Asp	His	Glu	Ile	Pro	Phe
				325					330					335	
Arg	Leu	Arg	Pro	Val	Phe	Ser	Asn	Gln	Phe	Leu	Leu	Glu	Thr	Ala	Ala
			340					345					350		
Tyr	Leu	Asp	Tyr	Glu	Ser	Thr	Lys	Glu	Tyr	Ala	Ile	Lys	Leu	Leu	Ala
	355						360					365			
Ala	Asp	Ala	Gly	Lys	Pro	Pro	Leu	Asn	Gln	Ser	Ala	Met	Leu	Phe	Ile
	370					375				380					
Lys	Val	Lys	Asp	Glu	Asn	Asp	Asn	Ala	Pro	Val	Phe	Thr	Gln	Ser	Phe

385					390					395				400		
Val	Thr	Val	Ser	Ile	Pro	Glu	Asn	Asn	Ser	Pro	Gly	Ile	Gln	Leu	Thr	
				405					410					415		
Lys	Val	Ser	Ala	Met	Asp	Ala	Asp	Ser	Gly	Pro	Asn	Ala	Lys	Ile	Asn	
			420					425					430			
Tyr	Leu	Leu	Gly	Pro	Asp	Ala	Pro	Pro	Glu	Phe	Ser	Leu	Asp	Cys	Arg	
		435					440					445				
Thr	Gly	Met	Leu	Thr	Val	Val	Lys	Lys	Leu	Asp	Arg	Glu	Lys	Glu	Asp	
	450					455					460					
Lys	Tyr	Leu	Phe	Thr	Ile	Leu	Ala	Lys	Asp	Asn	Gly	Val	Pro	Pro	Leu	
465					470				475						480	
Thr	Ser	Asn	Val	Thr	Val	Phe	Val	Ser	Ile	Ile	Asp	Gln	Asn	Asp	Asn	
			485						490					495		
Ser	Pro	Val	Phe	Thr	His	Asn	Glu	Tyr	Asn	Phe	Tyr	Val	Pro	Glu	Asn	
			500					505					510			
Leu	Pro	Arg	His	Gly	Thr	Val	Gly	Leu	Ile	Thr	Val	Thr	Asp	Pro	Asp	
		515					520					525				
Tyr	Gly	Asp	Asn	Ser	Ala	Val	Thr	Leu	Ser	Ile	Leu	Asp	Glu	Asn	Asp	
	530					535					540					
Asp	Phe	Thr	Ile	Asp	Ser	Gln	Thr	Gly	Val	Ile	Arg	Pro	Asn	Ile	Ser	
545					550					555					560	
Phe	Asp	Arg	Glu	Lys	Gln	Glu	Ser	Tyr	Thr	Phe	Tyr	Val	Lys	Ala	Glu	
			565						570					575		
Asp	Gly	Gly	Arg	Val	Ser	Arg	Ser	Ser	Ser	Ala	Lys	Val	Thr	Ile	Asn	
			580				585						590			
Val	Val	Asp	Val	Asn	Asp	Asn	Lys	Pro	Val	Phe	Ile	Val	Pro	Pro	Ser	
		595					600					605				
Asn	Cys	Ser	Tyr	Glu	Leu	Val	Leu	Pro	Ser	Thr	Asn	Pro	Gly	Thr	Val	
	610					615					620					
Val	Phe	Gln	Val	Ile	Ala	Val	Asp	Asn	Asp	Thr	Gly	Met	Asn	Ala	Glu	
625					630					635					640	
Val	Arg	Tyr	Ser	Ile	Val	Gly	Gly	Asn	Thr	Arg	Asp	Leu	Phe	Ala	Ile	
			645						650					655		
Asp	Gln	Glu	Thr	Gly	Asn	Ile	Thr	Leu	Met	Glu	Lys	Cys	Asp	Val	Thr	
		660					665						670			
Asp	Leu	Gly	Leu	His	Arg	Val	Leu	Val	Lys	Ala	Asn	Asp	Leu	Gly	Gln	
	675						680					685				
Pro	Asp	Ser	Leu	Phe	Ser	Val	Val	Ile	Val	Asn	Leu	Phe	Val	Asn	Glu	
	690					695					700					
Ser	Val	Thr	Asn	Ala	Thr	Leu	Ile	Asn	Glu	Leu	Val	Pro	Gln	Lys	His	
705					710					715					720	
Leu	Lys	His	Gln	Xaa	Pro	Gln	Ile	Leu	Glu	Ile	Ala	Asp	Val	Ser	Ser	
			725						730					735		
Pro	Thr	Ser	Asp	Tyr	Val	Lys	Ile	Leu	Val	Ala	Ala	Val	Ala	Gly	Thr	
			740					745					750			
Ile	Thr	Val	Val	Val	Val	Ile	Phe	Ile	Thr	Ala	Val	Val	Arg	Cys	Arg	
		755					760						765			
Gln	Ala	Pro	His	Leu	Lys	Ala	Ala	Gln	Lys	Asn	Met	Gln	Asn	Ser	Glu	
	770					775					780					
Trp	Ala	Thr	Pro	Asn	Pro	Glu	Asn	Arg	Gln	Met	Ile	Met	Met	Lys	Lys	
785					790					795					800	
Lys	Lys	Lys	Lys	Lys	Lys	Lys	His	Ser	Pro	Lys	Asn	Leu	Leu	Leu	Asn	Val
			805						810					815		
Val	Thr	Ile	Glu	Glu	Thr	Lys	Ala	Asp	Asp	Val	Asp	Ser	Asp	Gly	Asn	
			820					825					830			
Arg	Val	Thr	Leu	Asp	Leu	Pro	Ile	Asp	Leu	Glu	Glu	Gln	Thr	Met	Gly	
		835					840					845				
Lys	Tyr	Asn	Trp	Val	Thr	Thr	Pro	Thr	Thr	Phe	Lys	Pro	Asp	Ser	Pro	
	850					855					860					
Asp	Leu	Ala	Arg	His	Tyr	Lys	Ser	Ala	Ser	Pro	Gln	Pro	Ala	Phe	Gln	
865					870					875					880	
Ile	Gln	Pro	Glu	Thr	Pro	Leu	Asn	Leu	Lys	His	His	Ile	Ile	Gln	Glu	
			885					890					895			
Leu	Pro	Leu	Asp	Asn	Thr	Phe	Val	Ala	Cys	Asp	Ser	Ile	Ser	Asn	Cys	

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<210> 3734
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<212> PRT
<213> Homo sapiens

<221> misc_feature
<222> (1)...(280)
<223> Xaa = any amino acid or nothing
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5484

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210	215	220
Ile Glu Lys Leu Ile Lys Leu Gln Asp Met Glu Lys Lys Ala Asn Pro		
225	230	235
Ser Ser Leu Val Leu Glu Arg Arg Glu Val Glu Gln Gln Gly Phe Leu		
245	250	255
His Leu Gly Glu His Asp Gly Ser Leu Asp Leu Arg Ser Arg Arg Ser		
260	265	270
Val Gln Glu Gly Asn Pro Arg Ala		
275	280	

<210> 3735

<211> 145

<212> PRT

<213> Homo sapiens

<400> 3735

Val Glu Val Cys Arg Arg Tyr Leu Trp Lys Met Thr Val Asp Ala Ser		
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Gln Asn Val Gln Cys Cys Val Ile Phe Ser His Phe Pro Phe Ile Phe		
20	25	30
Asn Asn Leu Ser Lys Ile Lys Leu Leu His Thr Asp Thr Leu Leu Lys		
35	40	45
Ile Glu Ser Lys Lys His Lys Ala Tyr Leu Arg Ser Ala Ala Ile Glu		
50	55	60
Glu Glu Arg Glu Ser Glu Phe Ala Leu Arg Pro Thr Phe Asp Leu Thr		
65	70	75
Val Arg Arg Asn His Leu Ile Glu Asp Val Leu Asn Gln Leu Ser Gln		
85	90	95
Phe Glu Asn Glu Asp Leu Arg Lys Glu Leu Trp Val Ser Phe Ser Gly		
100	105	110
Glu Ile Gly Tyr Asp Leu Gly Gly Ser Val Lys Lys Glu Ile Phe Tyr		
115	120	125
Cys Leu Phe Ala Glu Met Ile Gln Pro Glu Tyr Gly Met Phe Met Tyr		
130	135	140
		144

<210> 3736

<211> 400

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(399)

<223> Xaa = any amino acid or nothing

<400> 3736

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Gly Pro His Ala Ala Leu Ala Asn Lys Ser Phe Phe Lys Ala Asp Lys		
20	25	30
Val Thr Met Leu Trp Asn Lys Lys Ala Thr Ala Val Leu Val Ile Ala		
35	40	45
Ser Thr Asp Val Asp Lys Thr Gly Ala Ser Tyr Tyr Gly Glu Gln Thr		
50	55	60
Leu His Tyr Ile Ala Thr Asn Gly Glu Ser Ala Val Val Gln Leu Pro		

65					70					75					80
Lys	Asn	Gly	Pro	Ile	Tyr	Asp	Val	Val	Trp	Asn	Ser	Ser	Ser	Thr	Glu
				85					90					95	
Phe	Cys	Ala	Val	Tyr	Gly	Phe	Met	Pro	Ala	Lys	Ala	Thr	Ile	Phe	Asn
			100					105					110		
Leu	Lys	Cys	Asp	Pro	Val	Phe	Asp	Phe	Gly	Thr	Gly	Pro	Arg	Asn	Ala
		115					120					125			
Ala	Tyr	Tyr	Ser	Pro	His	Gly	His	Ile	Leu	Val	Leu	Ala	Gly	Phe	Gly
	130					135					140				
Asn	Leu	Ile	Leu	Gln	Ile	Xaa	Ala	Asp	Ile	Met	Lys	Val	Trp	Asn	Val
145				150					155					160	
Lys	Asn	Tyr	Lys	Leu	Ile	Ser	Lys	Pro	Val	Ala	Ser	Asp	Ser	Thr	Tyr
			165					170						175	
Phe	Ala	Trp	Cys	Pro	Asp	Gly	Glu	His	Ile	Leu	Thr	Ala	Thr	Cys	Ala
		180					185						190		
Pro	Arg	Leu	Arg	Val	Asn	Asn	Gly	Tyr	Lys	Ile	Trp	His	Tyr	Thr	Gly
	195					200						205			
Ser	Ile	Leu	His	Lys	Tyr	Asp	Val	Pro	Ser	Asn	Ala	Glu	Leu	Trp	Gln
	210				215						220				
Val	Ser	Trp	Gln	Pro	Phe	Leu	Asp	Gly	Ile	Phe	Pro	Ala	Lys	Thr	Ile
225				230					235						240
Thr	Tyr	Gln	Ala	Val	Pro	Ser	Glu	Val	Pro	Asn	Glu	Glu	Pro	Lys	Val
			245					250						255	
Ala	Thr	Ala	Tyr	Arg	Pro	Pro	Ala	Leu	Arg	Asn	Lys	Pro	Ile	Thr	Asn
		260					265						270		
Ser	Lys	Leu	His	Glu	Glu	Glu	Pro	Pro	Gln	Asn	Met	Lys	Pro	Gln	Ser
	275					280						285			
Gly	Asn	Asp	Lys	Pro	Leu	Ser	Lys	Thr	Ala	Leu	Lys	Asn	Gln	Arg	Lys
	290				295						300				
His	Glu	Ala	Lys	Lys	Ala	Ala	Lys	Gln	Glu	Ala	Arg	Ser	Asp	Lys	Ser
305				310					315						320
Pro	Asp	Leu	Ala	Pro	Thr	Pro	Ala	Pro	Gln	Ser	Thr	Pro	Arg	Asn	Thr
			325					330						335	
Val	Ser	Gln	Ser	Ile	Ser	Gly	Asp	Pro	Glu	Ile	Asp	Lys	Lys	Ile	Lys
		340					345						350		
Asn	Leu	Lys	Lys	Lys	Leu	Lys	Ala	Ile	Glu	Gln	Leu	Lys	Glu	Gln	Ala
	355				360							365			
Ala	Thr	Gly	Lys	Gln	Leu	Glu	Lys	Asn	Gln	Leu	Glu	Lys	Ile	Gln	Lys
	370				375						380				
Glu	Thr	Ala	Leu	Leu	Gln	Glu	Leu	Glu	Asp	Leu	Glu	Leu	Gly	Ile	
385				390					395					399	

<210> 3737

<211> 842

<212> PRT

<213> Homo sapiens

<400> 3737

Val	Ala	Met	Gly	Thr	Pro	Arg	Ala	Gln	His	Pro	Pro	Pro	Pro	Gln	Leu
1				5				10						15	
Leu	Phe	Leu	Ile	Leu	Leu	Ser	Cys	Pro	Trp	Ile	Gln	Gly	Leu	Pro	Leu
		20					25					30			
Lys	Glu	Glu	Glu	Ile	Leu	Pro	Glu	Pro	Gly	Ser	Glu	Thr	Pro	Thr	Val
	35					40					45				
Ala	Ser	Glu	Ala	Leu	Ala	Glu	Leu	Leu	His	Gly	Ala	Leu	Leu	Arg	Arg
	50				55					60					
Gly	Pro	Glu	Met	Gly	Tyr	Leu	Pro	Gly	Pro	Pro	Leu	Gly	Pro	Glu	Gly
65				70				75						80	
Gly	Glu	Glu	Glu	Thr	Thr	Thr	Thr	Ile	Ile	Thr	Thr	Thr	Thr	Val	Thr
			85				90						95		
Thr	Thr	Val	Thr	Ser	Pro	Val	Leu	Cys	Asn	Asn	Asn	Ile	Ser	Glu	Gly

			100					105					110				
Glu	Gly	Tyr	Val	Glu	Ser	Pro	Asp	Leu	Gly	Ser	Pro	Val	Ser	Arg	Thr		
		115					120					125					
Leu	Gly	Leu	Leu	Asp	Cys	Thr	Tyr	Ser	Ile	His	Val	Tyr	Pro	Gly	Tyr		
		130				135					140						
Gly	Ile	Glu	Ile	Gln	Val	Gln	Thr	Leu	Asn	Leu	Ser	Gln	Glu	Glu	Glu		
145					150					155					160		
Leu	Leu	Val	Leu	Ala	Gly	Gly	Gly	Ser	Pro	Gly	Leu	Ala	Pro	Arg	Leu		
				165				170						175			
Leu	Ala	Asn	Ser	Ser	Met	Leu	Gly	Glu	Gly	Gln	Val	Leu	Arg	Ser	Pro		
		180					185					190					
Thr	Asn	Arg	Leu	Leu	Leu	His	Phe	Gln	Ser	Pro	Arg	Val	Pro	Arg	Gly		
		195					200					205					
Gly	Gly	Phe	Arg	Ile	His	Tyr	Gln	Ala	Tyr	Leu	Leu	Ser	Cys	Gly	Phe		
		210				215					220						
Pro	Pro	Arg	Pro	Ala	His	Gly	Asp	Val	Ser	Val	Thr	Asp	Leu	His	Pro		
225					230					235					240		
Gly	Gly	Thr	Ala	Thr	Phe	His	Cys	Asp	Ser	Gly	Tyr	Gln	Leu	Gln	Gly		
				245				250						255			
Glu	Glu	Thr	Leu	Ile	Cys	Leu	Asn	Gly	Thr	Arg	Pro	Ser	Trp	Asn	Gly		
			260					265					270				
Glu	Thr	Pro	Ser	Cys	Met	Ala	Ser	Cys	Gly	Gly	Thr	Ile	His	Asn	Ala		
		275					280					285					
Thr	Leu	Gly	Arg	Ile	Val	Ser	Pro	Glu	Pro	Gly	Gly	Ala	Val	Gly	Pro		
		290				295					300						
Asn	Leu	Thr	Cys	Arg	Trp	Val	Ile	Glu	Ala	Ala	Glu	Gly	Arg	Arg	Leu		
305					310					315					320		
His	Leu	His	Phe	Glu	Arg	Val	Ser	Leu	Asp	Glu	Asp	Asn	Asp	Arg	Leu		
			325					330						335			
Met	Val	Arg	Ser	Gly	Gly	Ser	Pro	Leu	Ser	Pro	Val	Ile	Tyr	Asp	Ser		
			340					345						350			
Asp	Met	Asp	Asp	Val	Pro	Glu	Arg	Gly	Leu	Ile	Ser	Asp	Ala	Gln	Ser		
		355					360					365					
Leu	Tyr	Val	Glu	Leu	Leu	Ser	Glu	Thr	Pro	Ala	Asn	Pro	Leu	Leu	Leu		
		370				375					380						
Ser	Leu	Arg	Phe	Glu	Ala	Phe	Glu	Glu	Asp	Arg	Cys	Phe	Ala	Pro	Phe		
385					390					395					400		
Leu	Ala	His	Gly	Asn	Val	Thr	Thr	Thr	Asp	Pro	Glu	Tyr	Arg	Pro	Gly		
			405						410					415			
Ala	Leu	Ala	Thr	Phe	Ser	Cys	Leu	Pro	Gly	Tyr	Ala	Leu	Glu	Pro	Pro		
			420					425						430			
Gly	Pro	Pro	Asn	Ala	Ile	Glu	Cys	Val	Asp	Pro	Thr	Glu	Pro	His	Trp		
		435				440						445					
Asn	Asp	Thr	Glu	Pro	Ala	Cys	Lys	Ala	Met	Cys	Gly	Gly	Glu	Leu	Ser		
		450				455					460						
Glu	Pro	Ala	Gly	Val	Val	Leu	Ser	Pro	Asp	Trp	Pro	Gln	Ser	Tyr	Ser		
465					470					475					480		
Pro	Gly	Gln	Asp	Cys	Val	Trp	Gly	Val	His	Val	Gln	Glu	Glu	Lys	Arg		
			485					490						495			
Ile	Leu	Leu	Gln	Val	Glu	Ile	Leu	Asn	Val	Arg	Glu	Gly	Asp	Met	Leu		
			500					505					510				
Thr	Leu	Phe	Asp	Gly	Asp	Gly	Pro	Ser	Ala	Arg	Val	Leu	Ala	Gln	Leu		
		515					520						525				
Arg	Gly	Pro	Gln	Pro	Arg	Arg	Arg	Leu	Leu	Ser	Ser	Gly	Pro	Asp	Leu		
		530				535					540						
Thr	Leu	Gln	Phe	Gln	Ala	Pro	Pro	Gly	Pro	Pro	Asn	Pro	Gly	Leu	Gly		
545					550					555					560		
Gln	Gly	Phe	Val	Leu	His	Phe	Lys	Glu	Val	Pro	Arg	Asn	Asp	Thr	Cys		
			565					570						575			
Pro	Glu	Leu	Pro	Pro	Pro	Glu	Trp	Gly	Trp	Arg	Thr	Ala	Ser	His	Gly		
			580					585					590				
Asp	Leu	Ile	Arg	Gly	Thr	Val	Leu	Thr	Tyr	Gln	Cys	Glu	Pro	Gly	Tyr		
		595				600						605					
Glu	Leu	Leu	Gly	Ser	Asp	Ile	Leu	Thr	Cys	Gln	Trp	Asp	Leu	Ser	Trp		

610	615	620
Ser Ala Ala Pro Pro Ala Cys Gln Lys Ile Met Thr Cys Ala Asp Pro		
625	630	635
Gly Glu Ile Ala Asn Gly His Arg Thr Ala Ser Asp Ala Gly Phe Pro		640
	645	650
Val Gly Ser His Val Gln Tyr Arg Cys Leu Pro Gly Tyr Ser Leu Glu		655
	660	665
Gly Ala Ala Met Leu Thr Cys Tyr Ser Arg Asp Thr Gly Thr Pro Lys		670
	675	680
Trp Ser Asp Arg Val Pro Lys Cys Ala Leu Lys Tyr Glu Pro Cys Leu		685
	690	695
Asn Pro Gly Val Pro Glu Asn Gly Tyr Gln Thr Leu Tyr Lys His His		700
705	710	715
Tyr Gln Ala Gly Glu Ser Leu Arg Phe Phe Cys Tyr Glu Gly Phe Glu		720
	725	730
Leu Ile Gly Glu Val Thr Ile Thr Cys Val Pro Gly His Pro Ser Gln		735
	740	745
Trp Thr Ser Gln Pro Pro Leu Cys Lys Val Thr Gln Thr Thr Asp Pro		750
	755	760
Ser Arg Gln Leu Glu Gly Gly Asn Leu Ala Leu Ala Ile Leu Leu Pro		765
	770	775
Leu Gly Leu Val Ile Val Leu Gly Ser Gly Val Tyr Ile Tyr Tyr Thr		780
785	790	795
Lys Leu Gln Gly Lys Ser Leu Phe Gly Phe Ser Gly Ser His Ser Tyr		800
	805	810
Ser Pro Ile Thr Val Glu Ser Asp Phe Ser Asn Pro Leu Tyr Glu Ala		815
	820	825
Gly Asp Thr Arg Glu Tyr Glu Val Ser Ile		830
	835	840
		842

<210> 3738

<211> 842

<212> PRT

<213> Homo sapiens

<400> 3738

Val Ala Met Gly Thr Pro Arg Ala Gln His Pro Pro Pro Pro Gln Leu	
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Leu Phe Leu Ile Leu Leu Ser Cys Pro Trp Ile Gln Gly Leu Pro Leu	10
	15
	20
Lys Glu Glu Glu Ile Leu Pro Glu Pro Gly Ser Glu Thr Pro Thr Val	25
	30
	35
Ala Ser Glu Ala Leu Ala Glu Leu Leu His Gly Ala Leu Leu Arg Arg	40
	45
	50
Gly Pro Glu Met Gly Tyr Leu Pro Gly Pro Pro Leu Gly Pro Glu Gly	55
	60
65	70
Gly Glu Glu Glu Thr Thr Thr Thr Ile Ile Thr Thr Thr Thr Val Thr	75
	80
	85
Thr Thr Val Thr Ser Pro Val Leu Cys Asn Asn Asn Ile Ser Glu Gly	90
	95
	100
Glu Gly Tyr Val Glu Ser Pro Asp Leu Gly Ser Pro Val Ser Arg Thr	105
	110
	115
Leu Gly Leu Leu Asp Cys Thr Tyr Ser Ile His Val Tyr Pro Gly Tyr	120
	125
	130
Gly Ile Glu Ile Gln Val Gln Thr Leu Asn Leu Ser Gln Glu Glu Glu	135
	140
145	150
Leu Leu Val Leu Ala Gly Gly Gly Ser Pro Gly Leu Ala Pro Arg Leu	155
	160
	165
Leu Ala Asn Ser Ser Met Leu Gly Glu Gly Gln Val Leu Arg Ser Pro	170
	175
	180
Thr Asn Arg Leu Leu Leu His Phe Gln Ser Pro Arg Val Pro Arg Gly	185
	190

										195					200					205					
Gly	Gly	Phe	Arg	Ile	His	Tyr	Gln	Ala	Tyr	Leu	Leu	Ser	Cys	Gly	Phe										
										210					215					220					
Pro	Pro	Arg	Pro	Ala	His	Gly	Asp	Val	Ser	Val	Thr	Asp	Leu	His	Pro										
										225					230					235					
Gly	Gly	Thr	Ala	Thr	Phe	His	Cys	Asp	Ser	Gly	Tyr	Gln	Leu	Gln	Gly										
										245					250					255					
Glu	Glu	Thr	Leu	Ile	Cys	Leu	Asn	Gly	Thr	Arg	Pro	Ser	Trp	Asn	Gly										
										260					265					270					
Glu	Thr	Pro	Ser	Cys	Met	Ala	Ser	Cys	Gly	Gly	Thr	Ile	His	Asn	Ala										
										275					280					285					
Thr	Leu	Gly	Arg	Ile	Val	Ser	Pro	Glu	Pro	Gly	Gly	Ala	Val	Gly	Pro										
										290					295					300					
Asn	Leu	Thr	Cys	Arg	Trp	Val	Ile	Glu	Ala	Ala	Glu	Gly	Arg	Arg	Leu										
										305					310					315					
His	Leu	His	Phe	Glu	Arg	Val	Ser	Leu	Asp	Glu	Asp	Asn	Asp	Arg	Leu										
										325					330					335					
Met	Val	Arg	Ser	Gly	Gly	Ser	Pro	Leu	Ser	Pro	Val	Ile	Tyr	Asp	Ser										
										340					345					350					
Asp	Met	Asp	Asp	Val	Pro	Glu	Arg	Gly	Leu	Ile	Ser	Asp	Ala	Gln	Ser										
										355					360					365					
Leu	Tyr	Val	Glu	Leu	Leu	Ser	Glu	Thr	Pro	Ala	Asn	Pro	Leu	Leu	Leu										
										370					375					380					
Ser	Leu	Arg	Phe	Glu	Ala	Phe	Glu	Glu	Asp	Arg	Cys	Phe	Ala	Pro	Phe										
										385					390					395					
Leu	Ala	His	Gly	Asn	Val	Thr	Thr	Thr	Asp	Pro	Glu	Tyr	Arg	Pro	Gly										
										405					410					415					
Ala	Leu	Ala	Thr	Phe	Ser	Cys	Leu	Pro	Gly	Tyr	Ala	Leu	Glu	Pro	Pro										
										420					425					430					
Gly	Pro	Pro	Asn	Ala	Ile	Glu	Cys	Val	Asp	Pro	Thr	Glu	Pro	His	Trp										
										435					440					445					
Asn	Asp	Thr	Glu	Pro	Ala	Cys	Lys	Ala	Met	Cys	Gly	Gly	Glu	Leu	Ser										
										450					455					460					
Glu	Pro	Ala	Gly	Val	Val	Leu	Ser	Pro	Asp	Trp	Pro	Gln	Ser	Tyr	Ser										
										465					470					475					
Pro	Gly	Gln	Asp	Cys	Val	Trp	Gly	Val	His	Val	Gln	Glu	Glu	Lys	Arg										
										485					490					495					
Ile	Leu	Leu	Gln	Val	Glu	Ile	Leu	Asn	Val	Arg	Glu	Gly	Asp	Met	Leu										
										500					505					510					
Thr	Leu	Phe	Asp	Gly	Asp	Gly	Pro	Ser	Ala	Arg	Val	Leu	Ala	Gln	Leu										
										515					520					525					
Arg	Gly	Pro	Gln	Pro	Arg	Arg	Arg	Leu	Leu	Ser	Ser	Gly	Pro	Asp	Leu										
										530					535					540					
Thr	Leu	Gln	Phe	Gln	Ala	Pro	Pro	Gly	Pro	Pro	Asn	Pro	Gly	Leu	Gly										
										545					550					555					
Gln	Gly	Phe	Val	Leu	His	Phe	Lys	Glu	Val	Pro	Arg	Asn	Asp	Thr	Cys										
										565					570					575					
Pro	Glu	Leu	Pro	Pro	Pro	Glu	Trp	Gly	Trp	Arg	Thr	Ala	Ser	His	Gly										
										580					585					590					
Asp	Leu	Ile	Arg	Gly	Thr	Val	Leu	Thr	Tyr	Gln	Cys	Glu	Pro	Gly	Tyr										
										595					600					605					
Glu	Leu	Leu	Gly	Ser	Asp	Ile	Leu	Thr	Cys	Gln	Trp	Asp	Leu	Ser	Trp										
										610					615					620					
Ser	Ala	Ala	Pro	Pro	Ala	Cys	Gln	Lys	Ile	Met	Thr	Cys	Ala	Asp	Pro										
										625					630					635					
Gly	Glu	Ile	Ala	Asn	Gly	His	Arg	Thr	Ala	Ser	Asp	Ala	Gly	Phe	Pro										
										645					650					655					
Val	Gly	Ser	His	Val	Gln	Tyr	Arg	Cys	Leu	Pro	Gly	Tyr	Ser	Leu	Glu										
										660					665					670					
Gly	Ala	Ala	Met	Leu	Thr	Cys	Tyr	Ser	Arg	Asp	Thr	Gly	Thr	Pro	Lys										
										675					680					685					
Trp	Ser	Asp	Arg	Val	Pro	Lys	Cys	Ala	Leu	Lys	Tyr	Glu	Pro	Cys	Leu										
										690					695					700					
Asn	Pro	Gly	Val	Pro	Glu	Asn	Gly	Tyr	Gln	Thr	Leu	Tyr	Lys	His	His										

705		710		715		720									
Tyr	Gln	Ala	Gly	Glu	Ser	Leu	Arg	Phe	Phe	Cys	Tyr	Glu	Gly	Phe	Glu
			725						730					735	
Leu	Ile	Gly	Glu	Val	Thr	Ile	Thr	Cys	Val	Pro	Gly	His	Pro	Ser	Gln
		740						745					750		
Trp	Thr	Ser	Gln	Pro	Pro	Leu	Cys	Lys	Val	Thr	Gln	Thr	Thr	Asp	Pro
		755					760					765			
Ser	Arg	Gln	Leu	Glu	Gly	Gly	Asn	Leu	Ala	Leu	Ala	Ile	Leu	Leu	Pro
	770					775					780				
Leu	Gly	Leu	Val	Ile	Val	Leu	Gly	Ser	Gly	Val	Tyr	Ile	Tyr	Tyr	Thr
785				790						795					800
Lys	Leu	Gln	Gly	Lys	Ser	Leu	Phe	Gly	Phe	Ser	Gly	Ser	His	Ser	Tyr
			805					810					815		
Ser	Pro	Ile	Thr	Val	Glu	Ser	Asp	Phe	Ser	Asn	Pro	Leu	Tyr	Glu	Ala
		820					825						830		
Gly	Asp	Thr	Arg	Glu	Tyr	Glu	Val	Ser	Ile						
		835					840		842						

<210> 3739

<211> 97

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(96)

<223> Xaa = any amino acid or nothing

<400> 3739

Leu	Leu	Glu	Pro	Glu	Pro	Ala	Glu	Glu	Tyr	Thr	Glu	Gln	Ser	Glu	Val
1				5					10					15	
Glu	Ser	Thr	Glu	Gly	Met	Ile	Leu	Ile	Xaa	Cys	Cys	Leu	Tyr	Phe	Ala
			20					25					30		
Ala	Phe	Gln	Thr	Asn	Val	Ser	Asn	Ile	Tyr	Phe	Ala	Leu	Gln	Tyr	Val
		35				40						45			
Asn	Arg	Gln	Phe	Met	Ala	Glu	Thr	Gln	Phe	Thr	Ser	Gly	Glu	Lys	Glu
	50					55					60				
Gln	Val	Asp	Glu	Trp	Thr	Val	Glu	Thr	Val	Glu	Val	Arg	Val	Leu	Cys
65					70					75					80
Ile	Ala	Lys	Leu	Leu	Ser	Leu	Ser	Ser	Val	Ser	Asn	Phe	Tyr	Leu	Tyr
				85					90					95	96

<210> 3740

<211> 527

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(526)

<223> Xaa = any amino acid or nothing

<400> 3740

Met	Ala	His	Tyr	Ile	Thr	Phe	Leu	Cys	Met	Val	Leu	Val	Leu	Leu	Leu
1				5					10					15	
Gln	Asn	Ser	Val	Leu	Ala	Glu	Asp	Gly	Glu	Val	Arg	Ser	Ser	Cys	Arg
			20					25					30		
Thr	Ala	Pro	Thr	Asp	Leu	Val	Phe	Ile	Leu	Asp	Gly	Ser	Tyr	Ser	Val

5491

<210> 3741
 <211> 1277
 <212> PRT
 <213> Homo sapiens

<221> misc_feature
 <222> (1)...(1270)
 <223> Xaa = any amino acid or nothing

<400> 3741
 Met Ser Ala Pro Ala Gly Ser Ser His Pro Ala Ala Ser Ala Arg Ile
 1 5 10 15
 Pro Pro Lys Phe Gly Gly Ser Ala Val Ser Gly Ala Ala Ala Pro Ala
 20 25 30
 Gly Pro Gly Ala Gly Pro Ala Pro His Gln Gln Asn Gly Pro Ala Gln
 35 40 45
 Asn Gln Met Gln Val Pro Ser Gly Tyr Gly Leu His His Gln Asn Tyr
 50 55 60
 Ile Ala Pro Ser Gly His Tyr Ser Gln Gly Pro Gly Lys Met Thr Ser
 65 70 75 80
 Leu Pro Leu Asp Thr Gln Cys Gly Asp Tyr Tyr Ser Ala Leu Tyr Thr
 85 90 95
 Val Pro Thr Gln Asn Val Thr Pro Asn Thr Val Asn Gln Gln Pro Gly
 100 105 110
 Ala Gln Gln Leu Tyr Ser Arg Gly Pro Pro Ala Pro His Ile Val Gly
 115 120 125
 Ser Thr Leu Gly Ser Phe Gln Gly Ala Ala Ser Ser Ala Ser His Leu
 130 135 140
 His Thr Ser Ala Ser Gln Pro Tyr Ser Ser Phe Val Asn His Tyr Asn
 145 150 155 160
 Ser Pro Ala Met Tyr Ser Ala Ser Ser Ser Val Ala Ser Gln Gly Phe
 165 170 175
 Pro Ser Thr Cys Gly His Tyr Ala Met Ser Thr Val Ser Asn Ala Ala
 180 185 190
 Tyr Pro Ser Val Ser Tyr Pro Ser Leu Pro Ala Gly Asp Thr Tyr Gly
 195 200 205
 Gln Met Phe Thr Ser Gln Asn Ala Pro Thr Val Arg Pro Val Lys Asp
 210 215 220
 Asn Ser Phe Ser Gly Gln Asn Thr Ala Ile Ser His Pro Ser Pro Leu
 225 230 235 240
 Pro Pro Leu Pro Ser Gln Gln His His Gln Gln Gln Ser Leu Ser Gly
 245 250 255
 Tyr Ser Thr Leu Thr Trp Ser Ser Pro Gly Leu Pro Ser Thr Gln Asp
 260 265 270
 Asn Leu Ile Arg Asn His Thr Gly Ser Leu Ala Val Ala Asn Asn Asn
 275 280 285
 Pro Thr Ile Thr Val Ala Asp Ser Leu Ser Cys Pro Val Met Gln Asn
 290 295 300
 Val Gln Pro Pro Lys Ser Ser Pro Val Val Ser Thr Val Leu Ser Gly
 305 310 315 320
 Ser Ser Gly Ser Ser Ser Thr Arg Thr Pro Pro Thr Ala Asn His Pro
 325 330 335
 Val Glu Pro Val Thr Ser Val Thr Gln Pro Ser Glu Leu Leu Gln Gln
 340 345 350
 Lys Gly Val Gln Tyr Gly Glu Tyr Val Asn Asn Gln Ala Ser Ser Ala
 355 360 365
 Pro Thr Pro Leu Ser Ser Thr Ser Asp Asp Glu Glu Glu Glu Glu
 370 375 380
 Asp Glu Glu Ala Gly Val Asp Ser Ser Ser Thr Thr Ser Ser Ala Ser
 385 390 395 400
 Pro Met Pro Asn Ser Tyr Asp Ala Leu Glu Gly Gly Ser Tyr Pro Asp
 405 410 415
 Met Leu Ser Ser Ser Ala Ser Ser Pro Ala Pro Asp Pro Ala Pro Glu

5493

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      930      935      940
Val Arg Ser Thr Asp Leu Leu Ser Leu Ala Asn Ile Asn Pro Asp Ala
945      950      955      960
Gly Phe Ala Val Gln Leu Ser Ile Glu Glu Ser Leu Thr Asp Thr Ser
      965      970      975
Leu Val Cys Phe Gln Thr Ala Leu Leu Tyr Thr Ser Ser Lys Gly Glu
      980      985      990
Arg Arg Ile Arg Val His Thr Leu Cys Leu Pro Val Val Ser Ser Leu
      995      1000      1005
Ser Asp Val Tyr Ala Gly Val Asp Val Gln Ala Ala Ile Cys Leu Leu
      1010      1015      1020
Ala Asn Met Ala Val Asp Arg Ser Val Ser Ser Ser Leu Ser Asp Ala
1025      1030      1035      1040
Arg Asp Ala Leu Val Asn Ala Val Val Asp Ser Leu Ser Ala Tyr Gly
      1045      1050      1055
Ser Thr Val Ser Asn Leu Gln His Ser Ala Leu Met Ala Pro Ser Ser
      1060      1065      1070
Leu Lys Leu Phe Pro Leu Tyr Val Leu Ala Leu Leu Lys Gln Lys Ala
      1075      1080      1085
Phe Arg Thr Gly Thr Ser Thr Arg Leu Asp Asp Arg Val Tyr Ala Met
      1090      1095      1100
Cys Gln Ile Lys Ser Gln Pro Leu Val His Leu Met Lys Met Ile His
1105      1110      1115      1120
Pro Asn Leu Tyr Arg Ile Asp Arg Leu Thr Asp Glu Gly Ala Val His
      1125      1130      1135
Val Asn Asp Arg Ile Val Pro Gln Pro Pro Leu Gln Lys Leu Ser Ala
      1140      1145      1150
Glu Lys Leu Thr Arg Glu Gly Ala Phe Leu Met Asp Cys Gly Ser Val
      1155      1160      1165
Phe Tyr Ile Trp Val Gly Lys Gly Cys Asp Asn Asn Phe Ile Glu Asp
      1170      1175      1180
Val Leu Gly Tyr Thr Asn Phe Ala Ser Ile Pro Gln Lys Met Thr His
1185      1190      1195      1200
Leu Pro Glu Leu Asp Thr Leu Ser Ser Glu Arg Ala Arg Ser Phe Ile
      1205      1210      1215
Thr Trp Leu Arg Asp Ser Arg Pro Leu Ser Pro Ile Leu His Ile Val
      1220      1225      1230
Lys Asp Glu Ser Pro Ala Lys Ala Glu Phe Phe Gln His Leu Ile Glu
      1235      1240      1245
Asp Arg Thr Glu Ala Ala Phe Ser Tyr Tyr Glu Phe Leu Leu His Val
      1250      1255      1260
Gln Gln Gln Ile Cys Lys
1265      1270

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<210> 3742

<211> 292

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(286)

<223> Xaa = any amino acid or nothing

<400> 3742

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Ser Met Leu Ala Ser Gln Gly Val Leu Leu His Pro Tyr Gly Val Pro
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Met Ile Val Pro Ala Ala Pro Tyr Leu Pro Gly Leu Ile Gln Gly Asn
      20      25      30
Gln Glu Ala Ala Ala Ala Pro Asp Thr Met Ala Gln Pro Tyr Ala Ser
      35      40      45
Ala Gln Phe Ala Pro Pro Gln Asn Gly Ile Pro Ala Glu Tyr Thr Ala

```


50	55	60
Pro His Pro His Pro Ala Pro Glu Tyr Thr Gly Gln Thr Thr Val Pro		
65	70	75
Glu His Thr Leu Asn Leu Tyr Pro Pro Ala Gln Thr His Ser Glu Gln		80
	85	90
Ser Pro Ala Asp Thr Ser Ala Gln Thr Val Ser Gly Thr Arg Asn Lys		95
	100	105
Gln Asp Xaa Arg Ser Thr Asp Gly Trp Pro Ser Pro Lys Thr Gln Thr		110
	115	120
Ser Xaa Lys His Gly Lys Gln Val Ser Ser Pro Ser Gly Leu His Val		125
	130	135
Ser Asn Ile Pro Phe Arg Phe Arg Asp Pro Asp Leu Arg Gln Met Phe		140
145	150	155
Gly Gln Phe Gly Lys Ile Leu Asp Val Glu Ile Ile Phe Asn Glu Arg		160
	165	170
Gly Ser Lys Gly Phe Gly Phe Val Thr Phe Glu Asn Ser Ala Asp Ala		175
	180	185
Asp Arg Ala Arg Glu Lys Leu His Gly Thr Val Val Glu Gly Arg Lys		190
	195	200
Ile Glu Val Asn Asn Ala Thr Ala Arg Val Met Thr Asn Lys Lys Thr		205
	210	215
Val Asn Pro Tyr Thr Asn Gly Trp Lys Leu Asn Pro Val Val Gly Ala		220
225	230	235
Val Tyr Ser Pro Glu Phe Tyr Ala Gly Thr Val Leu Leu Cys Gln Ala		240
	245	250
Asn Gln Glu Gly Ser Ser Met Tyr Ser Ala Pro Ser Thr Asp Phe Arg		255
	260	265
Gly Ala Lys Leu His Thr Ser Arg Pro Leu Leu Ser Gly Ser		270
	275	280
		285 286

<210> 3743

<211> 487

<212> PRT

<213> Homo sapiens

<400> 3743

Gln Phe Gln Gln Ala Trp Met Gln Asn Lys Val Pro Ile Pro Ala Pro		
1	5	10
Asn Glu Val Leu Asn Asp Arg Lys Glu Asp Ile Lys Leu Glu Glu Lys		15
	20	25
Lys Lys Thr Gln Ala Glu Ile Glu Gln Glu Met Ala Thr Leu Gln Tyr		30
	35	40
Thr Asn Pro Gln Leu Leu Glu Gln Leu Lys Ile Glu Arg Leu Ala Gln		45
	50	55
Lys Gln Val Glu Gln Ile Gln Pro Pro Pro Ser Ser Gly Thr Pro Leu		60
65	70	75
Leu Gly Pro Gln Pro Phe Pro Gly Gln Gly Pro Met Ser Gln Ile Pro		80
	85	90
Gln Gly Phe Pro Thr Ala Pro Ser Ile Ser Ala Asp Ala Asn Glu His		95
	100	105
Gly Ser Lys Gly Pro Pro Gly Pro Gln Gly Gln Phe Arg Pro Pro Gly		110
	115	120
Pro Gln Gly Gln Met Gly Pro Gln Gly Pro Pro Leu His Gln Gly Gly		125
	130	135
Gly Gly Pro Gln Gly Phe Met Gly Pro Gln Gly Pro Gln Gly Pro Pro		140
145	150	155
Gln Gly Leu Pro Arg Pro Gln Asp Met His Gly Pro Gln Gly Met Gln		160
	165	170
Arg His Pro Gly Pro His Gly Pro Leu Gly Pro Gln Gly Pro Pro Gly		175
	180	185
Pro Gln Gly Ser Ser Gly Pro Gln Gly His Met Gly Pro Gln Gly Pro		190

195	200	205
Pro Gly Pro Gln Gly His Ile Gly Pro Gln Gly Pro Pro Gly Pro Gln		
210	215	220
Gly His Leu Gly Pro Gln Gly Pro Pro Gly Thr Gln Gly Met Gln Gly		
225	230	235
Pro Pro Gly Pro Arg Gly Met Gln Gly Pro Pro His Pro His Gly Ile		
245	250	255
Gln Gly Gly Pro Gly Ser Gln Gly Ile Gln Gly Pro Val Ser Gln Gly		
260	265	270
Pro Leu Met Gly Leu Asn Pro Lys Gly Met Gln Gly Pro Pro Gly Pro		
275	280	285
Arg Glu Asn Gln Gly Pro Ala Pro Gln Gly Met Ile Met Gly His Pro		
290	295	300
Pro Gln Glu Met Arg Gly Pro His Pro Pro Gly Gly Leu Leu Gly His		
305	310	315
Gly Pro Gln Glu Met Arg Gly Pro Gln Glu Ile Arg Gly Met Gln Gly		
325	330	335
Pro Pro Pro Gln Gly Ser Met Leu Gly Pro Pro Gln Glu Leu Arg Gly		
340	345	350
Pro Pro Gly Ser Gln Ser Gln Gln Gly Pro Pro Gln Gly Ser Leu Gly		
355	360	365
Pro Pro Pro Gln Gly Gly Met Gln Gly Pro Pro Gly Pro Gln Gly Gln		
370	375	380
Gln Asn Pro Ala Arg Gly Pro His Pro Ser Gln Gly Pro Ile Pro Phe		
385	390	395
Gln Gln Gln Lys Thr Pro Leu Leu Gly Asp Gly Pro Arg Ala Pro Phe		
405	410	415
Asn Gln Glu Gly Gln Ser Thr Gly Pro Pro Pro Leu Ile Pro Gly Leu		
420	425	430
Gly Gln Gln Gly Ala Gln Gly Arg Ile Pro Pro Leu Asn Pro Gly Gln		
435	440	445
Gly Pro Gly Pro Asn Lys Val Ser Glu Arg Gly Ala Pro Pro Arg His		
450	455	460
Glu Gly Arg Ala Pro Pro Arg Gly Arg Asp Gly Phe Pro Gly Pro Met		
465	470	475
Lys Thr Leu Val		480
484		

<210> 3744

<211> 306

<212> PRT

<213> Homo sapiens

<400> 3744

Pro Leu Thr Gly Arg Lys Cys Pro Gly Trp Thr His Ser Gly Ser Arg		
1	5	10
Arg Ser Pro Arg Ile Ala Glu Glu Val Pro Gly Phe Pro Lys Arg Ala		
20	25	30
Glu Ala Ser Arg Gln Phe Ser Glu Thr Ala Asp Arg Leu Glu Leu Leu		
35	40	45
Arg Arg Ala Val Met Ala Ala Arg Ala Thr Thr Pro Ala Asp Gly		
50	55	60
Glu Glu Pro Ala Pro Glu Ala Glu Ala Leu Ala Ala Arg Glu Arg		
65	70	75
Ser Ser Arg Phe Leu Ser Gly Leu Glu Leu Val Lys Gln Gly Ala Glu		
85	90	95
Ala Arg Val Phe Arg Gly Arg Phe Gln Gly Arg Ala Ala Val Ile Lys		
100	105	110
His Arg Phe Pro Lys Gly Tyr Arg His Pro Ala Leu Glu Ala Arg Leu		
115	120	125
Gly Arg Arg Arg Thr Val Gln Glu Ala Arg Ala Leu Leu Arg Cys Arg		

130	135	140
Arg Ala Gly Ile Ser	Ala Pro Val Val Phe	Phe Val Asp Tyr Ala Ser
145	150	155
Asn Cys Leu Tyr Met	Glu Glu Ile Glu Gly	Ser Val Thr Val Arg Asp
165	170	175
Ile Phe Ser Pro Leu	Trp Arg Leu Lys Lys	Thr Pro Gln Gly Leu Ser
180	185	190
Asn Leu Ala Lys Thr	Ile Gly Gln Val Leu	Ala Arg Met His Asp Glu
195	200	205
Asp Leu Ile His Gly	Asp Leu Thr Thr Ser	Asn Met Leu Leu Lys Pro
210	215	220
Pro Leu Glu Gln Leu	Asn Ile Val Leu Ile	Asp Phe Gly Leu Ser Phe
225	230	235
Ile Ser Ala Leu Pro	Glu Asp Lys Gly Val	Asp Leu Tyr Val Leu Glu
245	250	255
Lys Ala Phe Leu Ser	Thr His Pro Asn Thr	Glu Thr Val Phe Glu Ala
260	265	270
Phe Leu Lys Ser Tyr	Ser Thr Ser Ser Lys	Lys Ala Arg Pro Val Leu
275	280	285
Lys Lys Leu Asp Glu	Val Arg Leu Arg Gly	Lys Lys Arg Ser Met Val
290	295	300
Gly		
305		

<210> 3745

<211> 437

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(435)

<223> Xaa = any amino acid or nothing

<400> 3745

Gly Ser His Arg Phe	Ser Leu Ala Ser	Pro Leu Asp Pro	Glu Val Gly
1	5	10	15
Pro Tyr Cys Asp Thr	Pro Thr Met Arg	Thr Leu Phe Asn	Leu Leu Trp
20	25	30	
Leu Ala Leu Ala Cys	Ser Pro Val His	Thr Thr Leu Ser	Lys Ser Asp
35	40	45	
Ala Lys Lys Ala Ala	Ser Lys Thr Leu	Leu Glu Lys Ser	Gln Phe Ser
50	55	60	
Asp Lys Pro Val Gln	Asp Arg Gly Leu	Val Val Thr Asp	Leu Lys Ala
65	70	75	80
Glu Ser Val Val Leu	Glu His Arg Ser	Tyr Cys Ser Ala	Lys Ala Arg
85	90	95	
Asp Arg His Phe Ala	Gly Asp Val Leu	Gly Tyr Val Thr	Pro Trp Asn
100	105	110	
Ser His Gly Tyr Asp	Val Thr Lys Val	Phe Gly Ser Lys	Phe Thr Gln
115	120	125	
Ile Ser Pro Val Trp	Leu Gln Leu Lys	Arg Arg Gly Arg	Glu Met Phe
130	135	140	
Glu Val Thr Gly Leu	His Asp Val Asp	Gln Gly Trp Met	Arg Ala Val
145	150	155	160
Arg Lys His Ala Lys	Gly Leu Pro Xaa	Cys Leu Gly Ser	Cys Leu Arg
165	170	175	
Thr Gly Leu Thr Met	Ile Ser Gly Tyr	Val Leu Asp Ser	Glu Asp Glu
180	185	190	
Ile Glu Glu Leu Ser	Lys Thr Val Val	Gln Val Ala Lys	Asn Gln His
195	200	205	
Phe Asp Gly Phe Val	Val Glu Val Trp	Asn Gln Leu Leu	Ser Gln Lys

210	215	220
Arg Val Gly Leu Ile His Met Leu Thr His Leu Ala Glu Ala Leu His		
225	230	235
Gln Ala Arg Leu Leu Ala Leu Leu Val Ile Pro Pro Ala Ile Thr Pro		
	245	250
Gly Thr Asp Gln Leu Gly Met Phe Thr His Lys Glu Phe Glu Gln Leu		
	260	265
Ala Pro Val Leu Asp Gly Phe Ser Leu Met Thr Tyr Asp Tyr Ser Thr		
	275	280
Ala His Gln Pro Gly Pro Asn Ala Pro Leu Ser Trp Val Arg Ala Cys		
	290	295
Val Gln Val Leu Asp Pro Lys Ser Lys Trp Arg Ser Lys Ile Leu Leu		
305	310	315
Gly Leu Asn Phe Tyr Gly Met Asp Tyr Ala Thr Ser Lys Asp Ala Arg		
	325	330
Glu Pro Val Val Gly Ala Arg Tyr Ile Gln Thr Leu Lys Asp His Arg		
	340	345
Pro Arg Met Val Trp Asp Ser Gln Val Ser Glu His Phe Phe Glu Tyr		
	355	360
Lys Lys Ser Arg Ser Gly Arg His Val Val Phe Tyr Pro Thr Leu Lys		
	370	375
Ser Leu Gln Val Arg Leu Glu Leu Ala Arg Glu Leu Gly Val Gly Val		
385	390	395
Ser Ile Trp Glu Leu Gly Gln Gly Leu Asp Tyr Phe Tyr Asp Leu Leu		
	405	410
Xaa Val Gly Ile Ala Ala Ser Ala Val Asp Val Phe Phe Ser Lys Pro		
	420	425
		430
Trp Ser Glu		
435		

<210> 3746

<211> 299

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(299)

<223> Xaa = any amino acid or nothing

<400> 3746

Ile Asp Arg Ala Ala Glu Cys Arg Thr Lys Pro Leu Pro Met Ala Val	
1	5
Ser Ile Arg Gly Asn Ala Asp Ser Ile Val Ala Cys Leu Val Leu Met	
	20
Val Leu Tyr Leu Ile Lys Lys Arg Leu Val Ala Cys Ala Ala Val Phe	
	35
Tyr Gly Phe Ala Val His Met Lys Ile Tyr Pro Glu Thr Tyr Ile Leu	
	50
Pro Ile Thr Leu His Leu Leu Pro Asp Arg Asp Asn Asp Lys Ser Leu	
65	70
Arg Gln Phe Arg Tyr Thr Phe Gln Ala Cys Leu Xaa Glu Leu Leu Lys	
	85
Arg Leu Cys Asn Arg Thr Ala Leu Met Phe Val Ala Val Ala Gly Leu	
	100
Thr Phe Phe Ala Leu Ser Phe Gly Phe Tyr Tyr Glu Tyr Gly Trp Glu	
	115
Phe Leu Glu His Thr Tyr Phe Tyr His Leu Thr Arg Arg Asp Ile Arg	
	130
His Asn Phe Ser Pro Tyr Phe Tyr Met Leu Tyr Leu Thr Ala Glu Ser	
145	150
Lys Trp Ser Phe Ser Leu Gly Ile Ala Ala Phe Leu Pro Gln Leu Ile	
	155
	160

Leu	Leu	Ser	Ala	Val	Ser	Phe	Ala	Tyr	Tyr	Arg	Asp	Leu	Val	Phe	Cys
			180					185					190		
Trp	Phe	Leu	His	Thr	Ser	Ile	Phe	Val	Thr	Phe	Asn	Lys	Val	Cys	Thr
		195					200					205			
Ser	Gln	Tyr	Phe	Leu	Trp	Tyr	Leu	Cys	Leu	Leu	Pro	Leu	Val	Met	Pro
	210					215					220				
Leu	Val	Arg	Met	Pro	Trp	Lys	Arg	Ala	Val	Val	Leu	Leu	Met	Leu	Trp
225					230					235					240
Phe	Ile	Gly	Gln	Ala	Met	Trp	Leu	Ala	Pro	Ala	Tyr	Val	Leu	Glu	Phe
				245					250					255	
Gln	Gly	Lys	Asn	Thr	Phe	Leu	Phe	Ile	Trp	Leu	Ala	Gly	Leu	Phe	Phe
			260					265					270		
Leu	Leu	Ile	Asn	Cys	Ser	Ile	Leu	Ile	Gln	Ile	Ile	Ser	His	Tyr	Lys
		275					280					285			
Glu	Glu	Pro	Leu	Thr	Glu	Arg	Ile	Lys	Tyr	Asp					
	290					295				299					

<210> 3747
 <211> 777
 <212> PRT
 <213> Homo sapiens

<400> 3747

Met	Val	Ile	Ser	Phe	Gln	Gly	Leu	Val	Thr	Phe	Gly	Asp	Val	Ala	Val
1				5					10					15	
Asp	Phe	Ser	Gln	Glu	Glu	Trp	Glu	Trp	Leu	Asn	Pro	Ile	Gln	Arg	Asn
			20					25					30		
Leu	Tyr	Arg	Lys	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Ala	Ser	Leu
	35					40						45			
Gly	Leu	Cys	Val	Ser	Lys	Pro	Asp	Val	Ile	Ser	Ser	Leu	Glu	Gln	Gly
	50					55					60				
Lys	Glu	Pro	Trp	Thr	Val	Lys	Arg	Lys	Met	Thr	Arg	Ala	Trp	Cys	Pro
65					70					75					80
Asp	Leu	Lys	Ala	Val	Trp	Lys	Ile	Lys	Glu	Leu	Pro	Leu	Lys	Lys	Asp
				85					90					95	
Phe	Cys	Glu	Gly	Lys	Leu	Ser	Gln	Ala	Val	Ile	Thr	Glu	Arg	Leu	Thr
			100					105					110		
Ser	Tyr	Asn	Leu	Glu	Tyr	Ser	Leu	Leu	Gly	Glu	His	Trp	Asp	Tyr	Asp
	115						120					125			
Ala	Leu	Phe	Glu	Thr	Gln	Pro	Gly	Leu	Val	Thr	Ile	Lys	Asn	Leu	Ala
	130					135						140			
Val	Asp	Phe	Arg	Gln	Gln	Leu	His	Pro	Ala	Gln	Lys	Asn	Phe	Cys	Lys
145					150					155					160
Asn	Gly	Ile	Trp	Glu	Asn	Asn	Ser	Asp	Leu	Gly	Ser	Ala	Gly	His	Cys
				165					170					175	
Val	Ala	Lys	Pro	Asp	Leu	Val	Ser	Leu	Leu	Glu	Gln	Glu	Lys	Glu	Pro
			180					185						190	
Trp	Met	Val	Lys	Arg	Glu	Leu	Thr	Gly	Ser	Leu	Phe	Ser	Gly	Gln	Arg
	195						200						205		
Ser	Val	His	Glu	Thr	Gln	Glu	Leu	Phe	Pro	Lys	Gln	Asp	Ser	Tyr	Ala
	210					215						220			
Glu	Gly	Val	Thr	Asp	Arg	Thr	Ser	Asn	Thr	Lys	Leu	Asp	Cys	Ser	Ser
225					230					235					240
Phe	Arg	Glu	Asn	Trp	Asp	Ser	Asp	Tyr	Val	Phe	Gly	Arg	Lys	Leu	Ala
				245					250					255	
Val	Gly	Gln	Glu	Thr	Gln	Phe	Arg	Gln	Glu	Pro	Ile	Thr	His	Asn	Lys
			260					265					270		
Thr	Leu	Ser	Lys	Glu	Arg	Glu	Arg	Thr	Tyr	Asn	Lys	Ser	Gly	Arg	Trp
		275					280						285		
Phe	Tyr	Leu	Asp	Asp	Ser	Glu	Glu	Lys	Val	His	Asn	Arg	Asp	Ser	Ile

290 295 300
Lys Asn Phe Gln Lys Ser Ser Val Val Ile Lys Gln Thr Gly Ile Tyr
305 310 315 320
Ala Gly Lys Lys Leu Phe Lys Cys Asn Glu Cys Lys Lys Thr Phe Thr
325 330 335
Gln Ser Ser Ser Leu Thr Val His Gln Arg Ile His Thr Gly Glu Lys
340 345 350
Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ser Asp Gly Ser Ser
355 360 365
Phe Ala Arg His Gln Arg Cys His Thr Gly Lys Lys Pro Tyr Glu Cys
370 375 380
Ile Glu Cys Gly Lys Ala Phe Ile Gln Asn Thr Ser Leu Ile Arg His
385 390 395 400
Trp Arg Tyr Tyr His Thr Gly Glu Lys Pro Phe Asp Cys Ile Asp Cys
405 410 415
Gly Lys Ala Phe Ser Asp His Ile Gly Leu Asn Gln His Arg Arg Ile
420 425 430
His Thr Gly Glu Lys Pro Tyr Lys Cys Asp Val Cys His Lys Ser Phe
435 440 445
Arg Tyr Gly Ser Ser Leu Thr Val His Gln Arg Ile His Thr Gly Glu
450 455 460
Lys Pro Tyr Glu Cys Asp Val Cys Arg Lys Ala Phe Ser His His Ala
465 470 475 480
Ser Leu Thr Gln His Gln Arg Val His Ser Gly Glu Lys Pro Phe Lys
485 490 495
Cys Lys Glu Cys Gly Lys Ala Phe Arg Gln Asn Ile His Leu Ala Ser
500 505 510
His Leu Arg Ile His Thr Gly Glu Lys Pro Phe Glu Cys Ala Glu Cys
515 520 525
Gly Lys Ser Phe Ser Ile Ser Ser Gln Leu Ala Thr His Gln Arg Ile
530 535 540
His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Val Cys Ser Lys Ala Phe
545 550 555 560
Thr Gln Lys Ala His Leu Ala Gln His Gln Lys Thr His Thr Gly Glu
565 570 575
Lys Pro Tyr Glu Cys Lys Glu Cys Gly Lys Ala Phe Ser Gln Thr Thr
580 585 590
His Leu Ile Gln His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys
595 600 605
Cys Met Glu Cys Gly Lys Ala Phe Gly Asp Asn Ser Ser Cys Thr Gln
610 615 620
His Gln Arg Leu His Thr Gly Gln Arg Pro Tyr Glu Cys Ile Glu Cys
625 630 635 640
Gly Lys Ala Phe Lys Thr Lys Ser Ser Leu Ile Cys His Arg Arg Ser
645 650 655
His Thr Gly Glu Lys Pro Tyr Glu Cys Ser Val Cys Gly Lys Ala Phe
660 665 670
Ser His Arg Gln Ser Leu Ser Val His Gln Arg Ile His Ser Gly Lys
675 680 685
Lys Pro Tyr Glu Cys Lys Glu Cys Arg Lys Thr Phe Ile Gln Ile Gly
690 695 700
His Leu Asn Gln His Lys Arg Val His Thr Gly Glu Arg Ser Tyr Asn
705 710 715 720
Tyr Lys Lys Ser Arg Lys Val Phe Arg Gln Thr Ala His Leu Ala His
725 730 735
His Gln Arg Ile His Thr Gly Glu Ser Ser Thr Cys Pro Ser Leu Pro
740 745 750
Ser Thr Ser Asn Pro Val Asp Leu Phe Pro Lys Phe Leu Trp Asn Pro
755 760 765
Ser Ser Leu Pro Ser Pro
770 774

<210> 3748

<211> 278

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(272)

<223> Xaa = any amino acid or nothing

<400> 3748

Gly	Gly	Tyr	Thr	Lys	Ser	Gly	Tyr	Asp	Ser	Ala	Cys	Lys	Asp	Phe	Val
1				5					10					15	
Pro	His	Asp	Leu	Glu	Val	Gln	Ile	Pro	Gly	Arg	Val	Phe	Leu	Val	Thr
			20					25					30		
Gly	Gly	Asn	Ser	Gly	Ile	Gly	Lys	Ala	Thr	Ala	Leu	Glu	Ile	Ala	Lys
		35					40					45			
Arg	Gly	Gly	Thr	Val	His	Leu	Val	Cys	Arg	Asp	Gln	Ala	Pro	Ala	Glu
	50					55				60					
Asp	Ala	Arg	Gly	Glu	Ile	Ile	Arg	Glu	Ser	Gly	Asn	Gln	Asn	Ile	Phe
65				70						75				80	
Leu	His	Ile	Val	Asp	Leu	Ser	Asp	Pro	Lys	Lys	Ile	Trp	Lys	Phe	Val
			85					90						95	
Glu	Asn	Phe	Lys	Gln	Glu	His	Lys	Leu	His	Val	Leu	Val	Asn	Asn	Ala
		100						105					110		
Gly	Cys	Met	Val	Asn	Lys	Arg	Glu	Ala	His	Lys	Lys	Met	Asp	Phe	Glu
	115						120					125			
Lys	Asn	Phe	Gly	Cys	Gln	Tyr	Ser	Gly	Val	Cys	Thr	Phe	Leu	Thr	Thr
	130					135					140				
Arg	Pro	Asp	Pro	Leu	Cys	Trp	Arg	Lys	Asn	Thr	Asp	Pro	Arg	Val	Ile
145				150						155				160	
Thr	Val	Ser	Ser	Gly	Gly	Met	Leu	Val	Gln	Lys	Leu	Asn	Asn	Gln	Xaa
			165					170						175	
Ser	Pro	Val	Arg	Lys	Asn	Thr	Ile	Trp	Met	Gly	Thr	Met	Val	Tyr	Ala
		180						185					190		
Gln	Asn	Lys	Val	Ser	Glu	Arg	Gln	Gln	Val	Val	Leu	Thr	Glu	Arg	Trp
	195						200					205			
Gly	Pro	Arg	Ala	Pro	Gly	Ile	His	Phe	Ser	Ser	Met	His	Pro	Gly	Trp
	210					215					220				
Ala	Asp	Thr	Pro	Gly	Val	Arg	Gln	Ala	Met	Pro	Gly	Phe	His	Val	Gln
225				230						235				240	
Ala	Ser	Gly	Tyr	Arg	Leu	Arg	Ser	Glu	Ala	Gln	Gly	Ala	Asp	Thr	Met
			245					250					255		
Leu	Trp	Leu	Ala	Leu	Ser	Ser	Ala	Arg	Ser	Arg	Thr	Ala	Gln	Arg	Pro
		260						265					270		272

<210> 3749

<211> 413

<212> PRT

<213> Homo sapiens

<400> 3749

Gly	Phe	Leu	Arg	Leu	Ser	Gln	Ala	Thr	Arg	Gln	Arg	Leu	Ser	Ile	Pro
1				5					10					15	
Val	Met	Val	Leu	Thr	Leu	Asp	Pro	Thr	Arg	Asp	Gln	Cys	Phe	Gly	Asp
		20						25					30		
Arg	Phe	Ser	Arg	Leu	Leu	Leu	Asp	Glu	Phe	Leu	Gly	Tyr	Asp	Asp	Ile
	35						40					45			
Leu	Met	Ser	Ser	Val	Lys	Gly	Leu	Ala	Glu	Asn	Glu	Glu	Asn	Lys	Gly

50	55	60
Phe Leu Arg Asn Val Val Ser Gly Glu His Tyr Arg Phe Val Ser Met		
65	70	75
Trp Met Ala Arg Thr Ser Tyr Leu Ala Ala Phe Ala Asn His Gly Gln		80
	85	90
Ser Phe Thr Leu Ser Val Ser His Ala Cys Cys Gly Tyr Ser His His		95
	100	105
Gln Ile Phe Val Phe Ile Val Asp Leu Leu Gln Met Leu Glu Met Asn		110
	115	120
Met Ala Ile Ala Phe Pro Ala Ala Pro Leu Leu Thr Val Ile Leu Ala		125
	130	135
Leu Val Gly Met Glu Ala Ile Met Ser Glu Phe Phe Asn Asp Thr Thr		140
145	150	155
Thr Ala Phe Tyr Ile Ile Leu Ile Val Trp Leu Ala Asp Gln Tyr Asp		160
	165	170
Ala Ile Cys Cys His Thr Ser Thr Ser Lys Arg His Trp Leu Arg Phe		175
	180	185
Phe Tyr Leu Tyr His Phe Ala Phe Tyr Ala Tyr His Tyr Arg Phe Asn		190
	195	200
Gly Gln Tyr Ser Ser Leu Ala Leu Val Thr Ser Trp Leu Phe Ile Gln		205
	210	215
His Ser Met Ile Tyr Phe Phe His His Tyr Glu Leu Pro Ala Ile Leu		220
225	230	235
Gln His Val Arg Ile Gln Glu Met Leu Leu Gln Ala Pro Thr Leu Gly		240
	245	250
Pro Gly Thr Pro Thr Ala Leu Pro Asp Asp Met Asn Asn Asn Ser Gly		255
	260	265
Ala Pro Ala Thr Ala Pro Asp Ser Ala Gly Gln Pro Pro Ala Leu Gly		270
	275	280
Pro Val Ser Pro Gly Ala Ser Gly Ser Pro Gly Pro Val Ala Ala Ala		285
290	295	300
Pro Ser Ser Leu Val Ala Ala Ala Ser Val Ala Ala Ala Ala Gly		305
	310	315
Gly Asp Leu Gly Trp Met Ala Glu Thr Ala Ala Ile Ile Thr Asp Ala		320
	325	330
Ser Phe Leu Ser Gly Leu Ser Ala Ser Leu Leu Glu Arg Arg Pro Ala		335
	340	345
Ser Pro Leu Gly Pro Ala Gly Gly Leu Pro His Ala Pro Gln Asp Ser		350
	355	360
Val Pro Pro Ser Asp Ser Ala Ala Ser Asp Thr Thr Pro Leu Gly Ala		365
	370	375
Ala Val Gly Gly Pro Ser Pro Ala Ser Met Ala Pro Thr Glu Ala Pro		380
385	390	395
Ser Glu Val Gly Ser		400
	405	

<210> 3750

<211> 284

<212> PRT

<213> Homo sapiens

<400> 3750

Gly Leu Leu Glu Pro Phe Ser Lys Leu Leu Ser Phe Val Ile Gln Asn	
1	5
Ala Val Phe Thr Leu Ala Tyr Leu Val Glu Leu Cys Gly Leu Cys Tyr	
	20
Arg Ala Phe Thr Lys Glu Arg Asp Lys Phe Tyr Leu Ser Arg Ser Val	
	35
Val Leu Glu Leu Leu Gln Ala Leu Lys Leu Lys Ser Pro Leu Pro Asp	
	50
Thr Asn Leu Leu Leu Leu Val Gln Phe Ile Cys Ala Asp Ala Gly Thr	
	55
	60

65		70		75		80									
Lys	Leu	Ala	Glu	Ser	Thr	Ile	Leu	Ser	Lys	Gln	Met	Ile	Ala	Ser	Val
				85					90					95	
Pro	Gly	Cys	Gly	Thr	Ala	Ala	Met	Glu	Cys	Val	Arg	Gln	Tyr	Ile	Asn
			100					105						110	
Glu	Val	Leu	Asp	Phe	Met	Ala	Asp	Met	His	Thr	Leu	Thr	Lys	Leu	Lys
			115					120					125		
Ser	His	Met	Lys	Thr	Cys	Ser	Gln	Pro	Leu	His	Glu	Asp	Thr	Phe	Gly
			130				135					140			
Gly	His	Leu	Lys	Val	Gly	Leu	Ala	Gln	Ile	Ala	Ala	Met	Asp	Ile	Ser
145					150					155				160	
Arg	Gly	Asn	His	Arg	Asp	Asn	Lys	Ala	Val	Ile	Arg	Tyr	Leu	Pro	Trp
				165					170					175	
Leu	Tyr	His	Pro	Pro	Ser	Ala	Met	Gln	Gln	Gly	Pro	Lys	Glu	Phe	Ile
			180					185						190	
Glu	Cys	Val	Ser	His	Ile	Arg	Leu	Leu	Ser	Trp	Leu	Leu	Leu	Gly	Ser
			195				200					205			
Leu	Thr	His	Asn	Ala	Val	Cys	Leu	Lys	Trp	Pro	Pro	Leu	Pro	Gly	Leu
			210				215					220			
Pro	Ile	Pro	Leu	Asp	Ala	Gly	Ser	His	Val	Ala	Asp	His	Leu	Ile	Val
225					230					235				240	
Ile	Leu	Ile	Gly	Phe	Pro	Glu	Gln	Ser	Lys	Thr	Ser	Val	Leu	His	Met
				245					250					255	
Cys	Ser	Leu	Phe	His	Ala	Phe	Ser	Leu	Ala	Gln	Leu	Trp	Asp	Ser	Leu
			260					265					270		
Leu	Ala	Arg	Gln	Ser	Gly	Arg	Trp								
			275				280								

<210> 3751

<211> 145

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(142)

<223> Xaa = any amino acid or nothing

<400> 3751

Ala	Phe	Thr	Arg	Lys	Cys	Glu	Glu	Thr	Ala	Phe	Ile	Val	Pro	Gln	Cys
1				5					10					15	
Glu	Ile	Ile	Pro	Thr	Glu	Trp	Val	Cys	Arg	Arg	Ile	Pro	Thr	Gly	Ser
			20					25					30		
Ser	Leu	Glu	Arg	Asn	Pro	Gly	Val	Lys	Glu	Gly	Cys	Glu	Phe	Cys	Pro
			35				40						45		
Pro	Lys	Val	Glu	Met	Phe	Phe	Lys	Asp	Asp	Ala	Asn	His	Asp	Pro	Gln
			50				55				60				
Trp	Ser	Arg	Gln	Gln	Leu	Ile	Ala	Ala	Lys	Phe	Gly	Phe	Ala	Ala	Leu
65					70					75				80	
Gly	Ile	Gln	Thr	Glu	Val	Asp	Ile	Met	Ser	His	Ala	Thr	Xaa	Ala	Val
				85					90					95	
Phe	Glu	Ile	Pro	Glu	Lys	Ser	Arg	Leu	Pro	Gln	Asn	Cys	Thr	Pro	Val
			100					105					110		
Asp	Met	Lys	Ile	Glu	Phe	Gly	Val	His	Val	Thr	Ser	Lys	Glu	Ile	Leu
			115				120					125			
Thr	Asp	Val	Ile	Asp	Asn	Asp	Ser	Xaa	Arg	His	Ser	Pro	Ser		
			130				135					140		142	

<210> 3752

<211> 384

<212> PRT

<213> Homo sapiens

<400> 3752

Ala Trp Ser Gly Ser Gly Leu Leu Val Leu Cys Ile Asn Thr Ala Ser
 1 5 10 15
 Met Pro Met Ile Ser Val Leu Gly Lys Met Phe Leu Trp Gln Arg Glu
 20 25 30
 Gly Pro Gly Gly Arg Trp Thr Cys Gln Thr Ser Arg Arg Val Ser Ser
 35 40 45
 Asp Pro Ala Trp Ala Val Glu Trp Ile Glu Leu Pro Arg Gly Leu Ser
 50 55 60
 Leu Ser Ser Leu Gly Ser Ala Arg Thr Leu Arg Gly Trp Ser Arg Ser
 65 70 75 80
 Ser Arg Pro Ser Ser Val Asp Ser Gln Asp Leu Pro Glu Val Asn Val
 85 90 95
 Gly Asp Thr Val Ala Met Leu Pro Lys Ser Arg Arg Ala Leu Thr Ile
 100 105 110
 Gln Glu Ile Ala Ala Leu Ala Arg Ser Ser Leu His Gly Ile Ser Gln
 115 120 125
 Val Val Lys Asp His Val Thr Lys Pro Thr Ala Met Ala Gln Gly Arg
 130 135 140
 Val Ala His Leu Ile Glu Trp Lys Gly Trp Ser Lys Pro Ser Asp Ser
 145 150 155 160
 Pro Ala Ala Leu Glu Ser Ala Phe Ser Ser Tyr Ser Asp Leu Ser Glu
 165 170 175
 Gly Glu Gln Glu Ala Arg Phe Ala Ala Gly Val Ala Glu Gln Phe Ala
 180 185 190
 Ile Ala Glu Ala Lys Leu Arg Ala Trp Ser Ser Val Asp Gly Glu Asp
 195 200 205
 Ser Thr Asp Asp Ser Tyr Asp Glu Asp Phe Ala Gly Gly Met Asp Thr
 210 215 220
 Asp Met Ala Gly Gln Leu Pro Leu Gly Pro His Leu Gln Asp Leu Phe
 225 230 235 240
 Thr Gly His Arg Phe Ser Arg Pro Val Arg Gln Gly Ser Val Glu Pro
 245 250 255
 Glu Ser Asp Cys Ser Gln Thr Val Ser Pro Asp Thr Leu Cys Ser Ser
 260 265 270
 Leu Cys Ser Leu Glu Asp Gly Leu Leu Gly Ser Pro Ala Arg Leu Ala
 275 280 285
 Pro Ser Cys Trp Ala Met Ser Cys Phe Ser Pro Asn Cys Pro Pro Ala
 290 295 300
 Gly Lys Val Pro Ser Ala Ala Trp Ala Pro Leu Glu Ala Gln Asp Ser
 305 310 315 320
 Leu Tyr Asn Ser Pro Leu Thr Glu Ser Cys Leu Ser Pro Ala Glu Glu
 325 330 335
 Glu Pro Ala Pro Cys Lys Asp Cys Gln Pro Leu Cys Pro Pro Leu Thr
 340 345 350
 Gly Ser Trp Glu Arg Gln Arg Gln Ala Ser Asp Leu Ala Ser Ser Gly
 355 360 365
 Val Val Ser Leu Asp Glu Asp Glu Ala Glu Pro Glu Glu Gln
 370 375 380 382

<210> 3753

<211> 378

<212> PRT

<213> Homo sapiens

<400> 3753

Tyr Tyr Ser Ser Val Arg Gln Arg Val Thr Cys Glu Glu Pro Arg Phe

1	5	10	15
Arg Glu Cys Ala	Ala Ala Leu Ile Glu Gly Ser Ala Thr Glu Val Tyr		
20	25	30	
Ala Gly Glu Trp Arg Ala Asp Arg Arg Ser Gly Phe Gly Val Ser Gln			
35	40	45	
Arg Ser Asn Gly Leu Arg Tyr Glu Gly Glu Trp Leu Gly Asn Arg Arg			
50	55	60	
His Gly Tyr Gly Arg Thr Thr Arg Pro Asp Gly Ser Arg Glu Glu Gly			
65	70	75	80
Lys Tyr Lys Arg Asn Arg Leu Val His Gly Gly Arg Val Arg Ser Leu			
85	90	95	
Leu Pro Leu Ala Leu Arg Arg Gly Lys Val Lys Glu Lys Val Asp Arg			
100	105	110	
Ala Val Glu Gly Ala Arg Arg Ala Val Ser Ala Ala Arg Gln Arg Gln			
115	120	125	
Glu Ile Ala Ala Ala Arg Ala Ala Asp Ala Leu Leu Lys Ala Val Ala			
130	135	140	
Ala Ser Ser Val Ala Glu Lys Ala Val Glu Ala Ala Arg Met Ala Lys			
145	150	155	160
Leu Ile Ala Gln Asp Leu Gln Pro Met Leu Glu Ala Pro Gly Arg Arg			
165	170	175	
Pro Arg Gln Asp Ser Glu Gly Ser Asp Thr Glu Pro Leu Asp Glu Asp			
180	185	190	
Ser Pro Gly Val Tyr Glu Asn Gly Leu Thr Pro Ser Glu Gly Ser Pro			
195	200	205	
Glu Leu Pro Ser Ser Pro Ala Ser Ser Arg Gln Pro Trp Arg Pro Pro			
210	215	220	
Ala Cys Arg Ser Pro Leu Pro Pro Gly Gly Asp Gln Gly Pro Phe Ser			
225	230	235	240
Ser Pro Lys Ala Trp Pro Glu Glu Trp Gly Gly Ala Gly Ala Gln Ala			
245	250	255	
Glu Glu Leu Ala Gly Tyr Glu Ala Glu Asp Glu Ala Gly Met Gln Gly			
260	265	270	
Pro Gly Pro Arg Asp Gly Ser Pro Leu Leu Gly Gly Cys Ser Asp Ser			
275	280	285	
Ser Gly Ser Leu Arg Glu Glu Glu Gly Glu Asp Glu Glu Pro Leu Pro			
290	295	300	
Pro Leu Arg Ala Pro Ala Gly Thr Glu Pro Glu Pro Ile Ala Met Leu			
305	310	315	320
Val Leu Arg Gly Ser Ser Ser Arg Gly Pro Asp Ala Gly Cys Leu Thr			
325	330	335	
Glu Glu Leu Gly Glu Pro Ala Ala Thr Glu Arg Pro Ala Gln Pro Gly			
340	345	350	
Ala Ala Asn Pro Leu Val Val Gly Ala Val Ala Leu Leu Asp Leu Ser			
355	360	365	
Leu Ala Phe Leu Phe Ser Gln Leu Leu Thr			
370	375	378	

<210> 3754

<211> 1112

<212> PRT

<213> Homo sapiens

<400> 3754

Ser Ser Leu Leu Glu Lys Met Thr Ser Ser Asp Lys Asp Phe Arg Phe			
1	5	10	15
Met Ala Thr Ser Asp Leu Met Ser Glu Leu Gln Lys Asp Ser Ile Gln			
20	25	30	
Leu Asp Glu Asp Ser Glu Arg Lys Val Val Lys Met Leu Leu Arg Leu			
35	40	45	
Leu Glu Asp Lys Asn Gly Glu Val Gln Asn Leu Ala Val Lys Trp Leu			

50	55	60
Gly Val Pro Leu Gly Ala Phe His Ala Ser Leu Leu His Cys Leu Leu		
65	70	75
Pro Gln Leu Ser Ser Pro Arg Leu Ala Val Arg Lys Arg Ala Val Gly		80
	85	90
Ala Leu Gly His Leu Ala Thr Ala Cys Ser Thr Asp Leu Phe Val Glu		95
	100	105
Leu Ala Asp His Leu Leu Asp Arg Leu Pro Gly Pro Arg Val Pro Thr		110
	115	120
Ser Pro Thr Ala Ile Arg Thr Leu Ile Gln Cys Leu Gly Ser Val Gly		125
	130	135
Arg Gln Ala Gly His Arg Leu Gly Ala His Leu Asp Arg Leu Val Pro		140
145	150	155
Leu Val Glu Asp Phe Cys Asn Leu Asp Asp Asp Glu Leu Arg Glu Ser		160
	165	170
Cys Leu Gln Ala Phe Glu Ala Phe Leu Arg Lys Cys Pro Lys Glu Met		175
	180	185
Gly Pro His Val Pro Asn Val Thr Ser Leu Cys Leu Gln Tyr Ile Lys		190
	195	200
His Asp Pro Asn Tyr Asn Tyr Asp Ser Asp Glu Asp Glu Glu Gln Met		205
	210	215
Glu Thr Glu Asp Ser Glu Phe Ser Glu Gln Glu Ser Glu Asp Glu Tyr		220
225	230	235
Ser Asp Asp Asp Asp Met Ser Trp Lys Val Arg Arg Ala Ala Ala Lys		240
	245	250
Cys Ile Ala Ala Leu Ile Ser Ser Arg Pro Asp Leu Leu Pro Asp Phe		255
	260	265
His Cys Thr Leu Ala Pro Val Leu Ile Arg Arg Phe Lys Glu Arg Glu		270
	275	280
Glu Asn Val Lys Ala Asp Val Phe Thr Ala Tyr Ile Val Leu Leu Arg		285
	290	295
Gln Thr Arg Pro Pro Lys Gly Trp Leu Glu Ala Met Glu Glu Pro Thr		300
305	310	315
Gln Thr Gly Ser Asn Leu His Met Leu Arg Gly Gln Val Pro Leu Val		320
	325	330
Val Lys Ala Leu Gln Arg Gln Leu Lys Asp Arg Ser Val Arg Ala Arg		335
	340	345
Gln Gly Cys Phe Ser Leu Leu Thr Glu Leu Ala Gly Val Leu Pro Gly		350
	355	360
Ser Leu Ala Glu His Met Pro Val Leu Val Ser Gly Ile Ile Phe Ser		365
	370	375
Leu Ala Asp Arg Ser Ser Ser Ser Thr Ile Arg Met Asp Ala Leu Ala		380
385	390	395
Phe Leu Gln Gly Leu Leu Gly Thr Glu Pro Ala Glu Ala Phe His Pro		400
	405	410
His Leu Pro Ile Leu Leu Pro Pro Val Met Ala Cys Val Ala Asp Ser		415
	420	425
Phe Tyr Lys Ile Ala Ala Glu Ala Leu Val Val Leu Gln Glu Leu Val		430
	435	440
Arg Ala Leu Trp Pro Leu His Arg Pro Arg Met Leu Asp Pro Glu Pro		445
	450	455
Tyr Val Gly Glu Met Ser Ala Val Thr Leu Ala Arg Leu Arg Ala Thr		460
465	470	475
Asp Leu Asp Gln Glu Val Lys Glu Arg Ala Ile Ser Cys Met Gly His		480
	485	490
Leu Val Gly His Leu Gly Asp Arg Leu Gly Asp Asp Leu Glu Pro Thr		495
	500	505
Leu Leu Leu Leu Leu Asp Arg Leu Arg Asn Glu Ile Thr Arg Leu Pro		510
	515	520
Ala Ile Lys Ala Leu Thr Leu Val Ala Val Ser Pro Leu Gln Leu Asp		525
	530	535
Leu Gln Pro Ile Leu Ala Glu Ala Leu His Ile Leu Ala Ser Phe Leu		540
545	550	555
Arg Lys Asn Gln Arg Ala Leu Arg Leu Ala Thr Leu Ala Ala Leu Asp		560

5507

1075	1080	1085
Ala Ala Leu Phe Glu Ser Ile	Gln Lys Asp Ser Thr Ser Ala Pro Ser	
1090	1095	1100
Thr Asp Ser Met Glu Leu Ser		
1105	11101111	

<210> 3755
 <211> 1112
 <212> PRT
 <213> Homo sapiens

<400> 3755

Ser	Ser	Leu	Leu	Glu	Lys	Met	Thr	Ser	Ser	Asp	Lys	Asp	Phe	Arg	Phe
1				5					10					15	
Met	Ala	Thr	Ser	Asp	Leu	Met	Ser	Glu	Leu	Gln	Lys	Asp	Ser	Ile	Gln
			20					25					30		
Leu	Asp	Glu	Asp	Ser	Glu	Arg	Lys	Val	Val	Lys	Met	Leu	Leu	Arg	Leu
		35					40					45			
Leu	Glu	Asp	Lys	Asn	Gly	Glu	Val	Gln	Asn	Leu	Ala	Val	Lys	Trp	Leu
	50					55					60				
Gly	Val	Pro	Leu	Gly	Ala	Phe	His	Ala	Ser	Leu	Leu	His	Cys	Leu	Leu
65					70					75					80
Pro	Gln	Leu	Ser	Ser	Pro	Arg	Leu	Ala	Val	Arg	Lys	Arg	Ala	Val	Gly
				85					90					95	
Ala	Leu	Gly	His	Leu	Ala	Thr	Ala	Cys	Ser	Thr	Asp	Leu	Phe	Val	Glu
			100					105					110		
Leu	Ala	Asp	His	Leu	Leu	Asp	Arg	Leu	Pro	Gly	Pro	Arg	Val	Pro	Thr
		115					120					125			
Ser	Pro	Thr	Ala	Ile	Arg	Thr	Leu	Ile	Gln	Cys	Leu	Gly	Ser	Val	Gly
	130					135						140			
Arg	Gln	Ala	Gly	His	Arg	Leu	Gly	Ala	His	Leu	Asp	Arg	Leu	Val	Pro
145					150					155					160
Leu	Val	Glu	Asp	Phe	Cys	Asn	Leu	Asp	Asp	Asp	Glu	Leu	Arg	Glu	Ser
				165				170						175	
Cys	Leu	Gln	Ala	Phe	Glu	Ala	Phe	Leu	Arg	Lys	Cys	Pro	Lys	Glu	Met
			180					185					190		
Gly	Pro	His	Val	Pro	Asn	Val	Thr	Ser	Leu	Cys	Leu	Gln	Tyr	Ile	Lys
		195					200					205			
His	Asp	Pro	Asn	Tyr	Asn	Tyr	Asp	Ser	Asp	Glu	Asp	Glu	Glu	Gln	Met
	210					215					220				
Glu	Thr	Glu	Asp	Ser	Glu	Phe	Ser	Glu	Gln	Glu	Ser	Glu	Asp	Glu	Tyr
225					230					235					240
Ser	Asp	Asp	Asp	Asp	Met	Ser	Trp	Lys	Val	Arg	Arg	Ala	Ala	Ala	Lys
				245					250					255	
Cys	Ile	Ala	Ala	Leu	Ile	Ser	Ser	Arg	Pro	Asp	Leu	Leu	Pro	Asp	Phe
			260					265					270		
His	Cys	Thr	Leu	Ala	Pro	Val	Leu	Ile	Arg	Arg	Phe	Lys	Glu	Arg	Glu
		275					280					285			
Glu	Asn	Val	Lys	Ala	Asp	Val	Phe	Thr	Ala	Tyr	Ile	Val	Leu	Leu	Arg
	290					295						300			
Gln	Thr	Arg	Pro	Pro	Lys	Gly	Trp	Leu	Glu	Ala	Met	Glu	Glu	Pro	Thr
305					310					315					320
Gln	Thr	Gly	Ser	Asn	Leu	His	Met	Leu	Arg	Gly	Gln	Val	Pro	Leu	Val
				325					330					335	
Val	Lys	Ala	Leu	Gln	Arg	Gln	Leu	Lys	Asp	Arg	Ser	Val	Arg	Ala	Arg
			340					345					350		
Gln	Gly	Cys	Phe	Ser	Leu	Leu	Thr	Glu	Leu	Ala	Gly	Val	Leu	Pro	Gly
		355					360					365			
Ser	Leu	Ala	Glu	His	Met	Pro	Val	Leu	Val	Ser	Gly	Ile	Ile	Phe	Ser
	370					375					380				
Leu	Ala	Asp	Arg	Ser	Ser	Ser	Ser	Thr	Ile	Arg	Met	Asp	Ala	Leu	Ala

385					390					395					400
Phe	Leu	Gln	Gly	Leu	Leu	Gly	Thr	Glu	Pro	Ala	Glu	Ala	Phe	His	Pro
				405					410					415	
His	Leu	Pro	Ile	Leu	Leu	Pro	Pro	Val	Met	Ala	Cys	Val	Ala	Asp	Ser
			420					425					430		
Phe	Tyr	Lys	Ile	Ala	Ala	Glu	Ala	Leu	Val	Val	Leu	Gln	Glu	Leu	Val
		435					440					445			
Arg	Ala	Leu	Trp	Pro	Leu	His	Arg	Pro	Arg	Met	Leu	Asp	Pro	Glu	Pro
	450					455					460				
Tyr	Val	Gly	Glu	Met	Ser	Ala	Val	Thr	Leu	Ala	Arg	Leu	Arg	Ala	Thr
465					470					475					480
Asp	Leu	Asp	Gln	Glu	Val	Lys	Glu	Arg	Ala	Ile	Ser	Cys	Met	Gly	His
			485					490						495	
Leu	Val	Gly	His	Leu	Gly	Asp	Arg	Leu	Gly	Asp	Asp	Leu	Glu	Pro	Thr
		500						505					510		
Leu	Leu	Leu	Leu	Leu	Asp	Arg	Leu	Arg	Asn	Glu	Ile	Thr	Arg	Leu	Pro
	515						520					525			
Ala	Ile	Lys	Ala	Leu	Thr	Leu	Val	Ala	Val	Ser	Pro	Leu	Gln	Leu	Asp
	530					535					540				
Leu	Gln	Pro	Ile	Leu	Ala	Glu	Ala	Leu	His	Ile	Leu	Ala	Ser	Phe	Leu
545					550					555					560
Arg	Lys	Asn	Gln	Arg	Ala	Leu	Arg	Leu	Ala	Thr	Leu	Ala	Ala	Leu	Asp
			565					570						575	
Ala	Leu	Ala	Gln	Ser	Gln	Gly	Leu	Ser	Leu	Pro	Pro	Ser	Ala	Val	Gln
			580					585					590		
Ala	Val	Leu	Ala	Glu	Leu	Pro	Ala	Leu	Val	Asn	Glu	Ser	Asp	Met	His
	595						600					605			
Val	Ala	Gln	Leu	Ala	Val	Asp	Phe	Leu	Ala	Thr	Val	Thr	Gln	Ala	Gln
	610					615					620				
Pro	Ala	Ser	Leu	Val	Glu	Val	Ser	Gly	Pro	Val	Leu	Ser	Glu	Leu	Leu
625					630					635					640
Arg	Leu	Leu	Arg	Ser	Pro	Leu	Leu	Pro	Ala	Gly	Val	Leu	Ala	Ala	Ala
			645					650						655	
Glu	Gly	Phe	Leu	Gln	Ala	Leu	Val	Gly	Thr	Arg	Pro	Pro	Cys	Val	Asp
		660						665					670		
Tyr	Ala	Lys	Leu	Ile	Ser	Leu	Leu	Thr	Ala	Pro	Val	Tyr	Glu	Gln	Ala
	675							680				685			
Val	Asp	Gly	Gly	Pro	Gly	Leu	His	Lys	Gln	Val	Phe	His	Ser	Leu	Ala
	690				695						700				
Arg	Cys	Val	Ala	Ala	Leu	Ser	Ala	Ala	Cys	Pro	Gln	Glu	Ala	Glu	Ser
705					710					715					720
Thr	Ala	Ser	Arg	Leu	Val	Cys	Asp	Ala	Arg	Ser	Pro	His	Ser	Ser	Thr
			725					730						735	
Gly	Val	Lys	Val	Leu	Ala	Phe	Leu	Ser	Leu	Ala	Glu	Val	Gly	Gln	Val
		740						745					750		
Ala	Gly	Pro	Gly	His	Glu	Arg	Glu	Leu	Lys	Ala	Val	Leu	Leu	Glu	Ala
	755						760					765			
Leu	Gly	Ser	Pro	Ser	Glu	Asp	Val	Arg	Ala	Ala	Ala	Ser	Tyr	Ala	Leu
	770					775					780				
Gly	Arg	Val	Gly	Ala	Gly	Ser	Leu	Pro	Asp	Phe	Leu	Pro	Phe	Leu	Leu
785					790					795					800
Glu	Gln	Ile	Glu	Ala	Glu	Pro	Arg	Arg	Gln	Tyr	Leu	Leu	Leu	His	Ser
			805						810					815	
Leu	Lys	Glu	Ala	Leu	Gly	Ala	Ala	Gln	Pro	Asp	Ser	Leu	Lys	Pro	Tyr
		820						825					830		
Ala	Glu	Asp	Ile	Trp	Ala	Leu	Leu	Phe	Gln	Arg	Cys	Glu	Gly	Ala	Glu
	835					840						845			
Glu	Gly	Thr	Arg	Gly	Val	Val	Ala	Glu	Cys	Ile	Gly	Lys	Leu	Val	Leu
	850					855					860				
Val	Asn	Pro	Ser	Phe	Leu	Leu	Pro	Arg	Leu	Arg	Lys	Gln	Leu	Ala	Ala
865					870					875					880
Gly	Arg	Pro	His	Thr	Arg	Ser	Thr	Val	Ile	Thr	Ala	Val	Lys	Phe	Leu
			885					890						895	
Ile	Ser	Asp	Gln	Pro	His	Pro	Ile	Asp	Pro	Leu	Leu	Lys	Ser	Phe	Ile

900	905	910
Ala Val His Asn Lys Pro Ser Leu Val Arg Asp Leu Leu Asp Asp Ile		
915	920	925
Leu Pro Leu Leu Tyr Gln Glu Thr Lys Ile Arg Arg Asp Leu Ile Arg		
930	935	940
Glu Val Glu Met Gly Pro Phe Lys His Thr Val Asp Asp Gly Leu Asp		
945	950	955
Val Arg Lys Ala Ala Phe Glu Cys Met Tyr Ser Leu Leu Glu Ser Cys		
965	970	975
Leu Gly Gln Leu Asp Ile Cys Glu Phe Leu Asn His Val Glu Asp Gly		
980	985	990
Leu Lys Asp His Tyr Asp Ile Arg Met Leu Thr Phe Ile Met Val Ala		
995	1000	1005
Arg Leu Ala Thr Leu Cys Pro Ala Pro Val Leu Gln Arg Val Asp Arg		
1010	1015	1020
Leu Ile Glu Pro Leu Arg Ala Thr Cys Thr Ala Lys Val Lys Ala Gly		
1025	1030	1035
Ser Val Lys Gln Glu Phe Glu Lys Gln Asp Glu Leu Lys Arg Ser Ala		
1045	1050	1055
Met Arg Ala Val Ala Ala Leu Leu Thr Ile Pro Glu Val Gly Lys Ser		
1060	1065	1070
Pro Ile Met Ala Asp Phe Ser Ser Gln Ile Arg Ser Asn Pro Glu Leu		
1075	1080	1085
Ala Ala Leu Phe Glu Ser Ile Gln Lys Asp Ser Thr Ser Ala Pro Ser		
1090	1095	1100
Thr Asp Ser Met Glu Leu Ser		
1105	1110	1111

<210> 3756

<211> 420

<212> PRT

<213> Homo sapiens

<400> 3756

Ser Leu Glu Glu Gln Gln Gly Arg His Pro Ser Phe Ala Pro Lys Cys		
1	5	10
Ala Ser Gln Ile Leu Gly Arg Ile Met Ile Thr Leu Ile Thr Glu Gln		
20	25	30
Leu Gln Lys Gln Thr Leu Asp Glu Leu Lys Cys Thr Arg Phe Ser Ile		
35	40	45
Ser Leu Pro Leu Pro Asp His Ala Asp Ile Ser Asn Cys Gly Asn Ser		
50	55	60
Phe Gln Leu Val Ser Glu Gly Ala Ser Trp Arg Gly Leu Pro His Cys		
65	70	75
Ser Cys Ala Glu Phe Gln Asp Gln Pro Gln Leu Gln Leu Pro Ser Leu		
85	90	95
Arg Pro Glu Pro Ala Pro Gln Thr Thr His Arg Gly Asn Ser Pro Lys		
100	105	110
Glu Gln Pro Phe Ser Gln Val Leu Arg Pro Glu Pro Pro Asp Pro Glu		
115	120	125
Lys Leu Pro Val Pro Pro Ala Pro Pro Ser Lys Arg His Cys Arg Ser		
130	135	140
Leu Ser Val Pro Val Asp Leu Ser Arg Trp Gln Pro Val Trp Arg Pro		
145	150	155
Ala Pro Ser Lys Leu Trp Thr Pro Ile Lys His Arg Gly Ser Gly Gly		
165	170	175
Gly Gly Gly Pro Gln Val Pro His Gln Ser Pro Pro Lys Arg Val Ser		
180	185	190
Ser Leu Ser Val Pro Pro Ser Ser Gln Cys Leu Phe Ser Met Cys Pro		
195	200	205
Ser Ser His Thr Leu Gln Pro Ser Phe Leu Gln Pro Gly Pro Gly Pro		

210	215	220
Asp Ser Ser Arg Pro Cys Ala Ala Ser Pro Gln Ser Gly Ser Trp Glu		
225	230	235
Ser Asp Ala Glu Ser Leu Ser Pro Cys Pro Pro Gln Arg Arg Phe Ser		240
	245	250
Leu Ser Pro Ser Leu Gly Pro Gln Ala Ser Arg Phe Leu Pro Ser Ala		255
	260	265
Arg Ser Ser Pro Ala Ser Ser Pro Glu Leu Pro Trp Arg Pro Arg Gly		270
	275	280
Leu Arg Asn Leu Pro Arg Ser Arg Ser Gln Pro Cys Asp Leu Asp Ala		285
	290	295
Arg Lys Thr Gly Val Lys Arg Arg His Glu Glu Asp Pro Arg Arg Leu		300
305	310	315
Arg Pro Ser Leu Asp Phe Asp Lys Met Asn Gln Lys Pro Tyr Ser Gly		320
	325	330
Gly Leu Cys Leu Gln Glu Thr Ala Arg Glu Gly Ser Ser Ile Ser Pro		335
	340	345
Pro Trp Phe Met Ala Cys Ser Pro Pro Pro Leu Ser Ala Ser Cys Ser		350
	355	360
Pro Thr Gly Gly Ser Ser Gln Val Leu Ser Glu Ser Glu Glu Glu Glu		365
	370	375
Glu Gly Ala Val Arg Trp Gly Arg Gln Ala Leu Ser Lys Arg Thr Leu		380
385	390	395
Cys Gln Arg Asp Phe Gly Asp Leu Asp Leu Asn Leu Ile Glu Glu Asn		400
	405	410
		415 416

<210> 3757

<211> 141

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(138)

<223> Xaa = any amino acid or nothing

<400> 3757

Pro Lys Pro Met Leu Gln Gln Asp Phe Thr Ser Leu Pro Asp Gln Gly		
1	5	10
Leu Asp His Ile Ala Glu Asn Ser Tyr Phe Asp Ala Arg Ser Leu Cys		15
	20	25
Ala Ala Glu Leu Val Cys Lys Glu Trp Gln Gln Val Thr Ser Glu Xaa		30
	35	40
Met Leu Trp Lys Lys Leu Ile Glu Arg Met Val His Ala Tyr Pro Leu		45
	50	55
Trp Lys Gly Leu Ser Glu Lys Val Trp Asp Gln His Leu Phe Lys Asn		60
65	70	75
Arg Pro Thr Asp Gly Pro Pro Asn Ser Phe His Arg Ser Leu Tyr Pro		80
	85	90
Lys Ile Ile Gln Val Ile Glu Thr Ile Glu Ser Asn Trp Gln Cys Gly		95
	100	105
Xaa His Thr Leu Gln Arg Ile Gln Cys His Ser Glu Lys Ser Lys Gly		110
	115	120
Val Tyr Cys Leu Gln Tyr Asp Asp Glu Lys		125
130	135	138

<210> 3758

<211> 204

<212> PRT

<213> Homo sapiens

<400> 3758

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Phe Val Ser Gly Ser Pro Trp Arg Met Asp Gly Ser Thr Glu Arg Leu
 1           5           10           15
Glu Ala Arg Arg Pro Ala Gly Arg Leu Pro Trp Ser Ser Arg Gln Glu
          20           25           30
Met Thr Arg Arg Pro Ser Leu Met Ala Gly Arg Gln His Gly Trp Ser
          35           40           45
Ala Gln Gln Ser Ala Thr Val Ala Asn Pro Val Pro Gly Ala Asn Pro
          50           55           60
Asp Leu Leu Pro His Phe Leu Gly Glu Pro Glu Asp Val Tyr Ile Val
          65           70           75           80
Lys Asn Lys Pro Val Leu Leu Val Cys Lys Ala Val Pro Ala Thr Gln
          85           90           95
Ile Phe Phe Lys Cys Asn Gly Glu Trp Val Arg Gln Val Asp His Val
          100          105          110
Ile Glu Arg Ser Thr Asp Gly Ser Ser Gly Leu Pro Thr Met Glu Val
          115          120          125
Arg Ile Asn Val Ser Arg Gln Gln Val Glu Lys Val Phe Gly Leu Glu
          130          135          140
Glu Tyr Trp Cys Gln Cys Val Ala Trp Ser Ser Ser Gly Thr Thr Lys
          145          150          155          160
Ser Gln Lys Ala Tyr Ile Arg Ile Ala Tyr Leu Arg Lys Asn Phe Glu
          165          170          175
Gln Glu Pro Leu Ala Lys Glu Val Ser Leu Glu Gln Gly Ile Val Leu
          180          185          190
Pro Cys Arg Pro Pro Glu Gly Ile Pro Pro Ala Glu
          195          200          204

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<210> 3759

<211> 187

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(187)

<223> Xaa = any amino acid or nothing

<400> 3759

```

Ala Asp Asp Thr Leu His Leu Trp Asn Leu Arg Gln Lys Arg Pro Ala
 1           5           10           15
Ile Leu His Ser Leu Lys Phe Cys Arg Glu Arg Val Thr Phe Cys His
          20           25           30
Leu Pro Phe Gln Ser Lys Trp Leu Tyr Val Gly Thr Glu Arg Gly Asn
          35           40           45
Ile His Ile Val Asn Val Glu Ser Phe Thr Leu Ser Gly Tyr Val Ile
          50           55           60
Met Trp Asn Lys Ala Ile Glu Leu Ser Ser Lys Ser His Pro Gly Pro
          65           70           75           80
Val Val His Ile Ser Asp Asn Pro Met Asp Glu Gly Lys Leu Leu Ile
          85           90           95
Gly Phe Glu Ser Gly Thr Val Val Leu Trp Asp Leu Lys Ser Lys Lys
          100          105          110
Ala Asp Tyr Arg Tyr Thr Tyr Asp Glu Ala Ile His Ser Val Ala Trp
          115          120          125
His His Glu Gly Lys Gln Phe Ile Cys Ser His Ser Asp Gly Thr Leu
          130          135          140
Thr Ile Trp Asn Val Arg Ser Pro Ala Lys Pro Val Gln Thr Ile Thr

```


145		150		155		160									
Pro	His	Gly	Lys	Gln	Leu	Lys	Asp	Gly	Lys	Lys	Pro	Glu	Pro	Cys	Lys
		165		170		175									
Pro	Ile	Leu	Lys	Val	Glu	Phe	Xaa	Thr	Thr	Arg					
		180		185		187									

<210> 3760

<211> 275

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(274)

<223> Xaa = any amino acid or nothing

<400> 3760

Leu	Pro	Ala	Cys	Arg	Cys	Gly	Cys	Val	Ala	Gly	Cys	Pro	Ser	Asn	His
1				5					10					15	
Gly	Ile	Cys	Arg	Cys	Leu	Arg	Ala	Ser	Glu	Arg	Gln	Val	Cys	Val	Met
		20				25					30				
His	Leu	Lys	His	Leu	Arg	Thr	Leu	Leu	Ser	Pro	Gln	Asp	Gly	Ala	Ala
		35				40					45				
Lys	Val	Thr	Cys	Met	Ala	Trp	Ser	Gln	Asn	Asn	Ala	Lys	Phe	Ala	Val
	50					55					60				
Cys	Thr	Val	Asp	Arg	Val	Val	Leu	Leu	Tyr	Asp	Glu	His	Gly	Glu	Arg
65				70					75						80
Arg	Asp	Lys	Phe	Ser	Thr	Lys	Pro	Ala	Asp	Met	Lys	Tyr	Gly	Arg	Lys
			85						90					95	
Ser	Tyr	Met	Val	Lys	Gly	Met	Ala	Phe	Ser	Pro	Asp	Ser	Thr	Lys	Ile
		100					105						110		
Ala	Ile	Gly	Gln	Thr	Asp	Asn	Ile	Ile	Tyr	Val	Tyr	Lys	Ile	Gly	Glu
	115					120					125				
Asp	Trp	Gly	Asp	Lys	Lys	Val	Ile	Cys	Asn	Lys	Phe	Ile	Gln	Thr	Val
130						135					140				
Lys	Phe	Arg	Pro	Val	Pro	Gly	Thr	Leu	Gly	Xaa	Thr	Asn	Ile	Tyr	Gln
145				150					155						160
Tyr	Ile	Tyr	Leu	Xaa	Ile	Gln	Pro	Gly	Val	Ala	Phe	Leu	Thr	Ser	Glu
			165					170						175	
Cys	Asp	Phe	Ser	Tyr	Cys	Lys	Asp	Gly	Ala	Ser	Trp	Leu	Phe	Met	Val
			180					185					190		
Ile	Cys	Cys	Leu	Pro	Xaa	Ser	Pro	Ala	Val	Ser	Phe	Pro	Ile	Gly	Asp
		195				200					205				
Xaa	Ser	Ala	Val	Thr	Cys	Leu	Gln	Trp	Pro	Ala	Glu	Tyr	Ile	Ile	Val
	210					215					220				
Phe	Gly	Leu	Ala	Glu	Gly	Lys	Val	Arg	Leu	Ser	Asn	Thr	Lys	Thr	Asn
225				230					235						240
Lys	Ser	Ser	Thr	Ile	Tyr	Gly	Thr	Glu	Ser	Tyr	Val	Val	Ser	Leu	Thr
			245					250					255		
Thr	Asn	Cys	Ser	Gly	Lys	Gly	Ile	Leu	Ser	Gly	His	Ala	Asp	Gly	Tyr
			260					265					270		
Gln	Arg														
	274														

<210> 3761

<211> 651

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1) ... (641)

<223> Xaa = any amino acid or nothing

<400> 3761

```

Pro Val Ile Gln Arg Cys Ser Gln Pro Tyr Gly Phe Ser Leu Leu Ile
 1           5           10           15
Ser Phe Phe Leu Lys Cys Val Ser Glu Thr Ser Gln Gln Pro Pro Ser
      20           25           30
Arg Lys Val Phe Gln Leu Leu Pro Ser Phe Pro Thr Leu Thr Arg Ser
      35           40           45
Lys Ser His Glu Ser Gln Leu Gly Asn Arg Ile Asp Asp Val Ser Ser
      50           55           60
Met Arg Phe Asp Leu Ser His Gly Ser Pro Gln Met Val Arg Arg Asp
      65           70           75           80
Ile Gly Leu Ser Val Thr His Arg Phe Ser Thr Lys Ser Trp Leu Ser
      85           90           95
Gln Val Cys His Val Cys Gln Lys Ser Met Ile Phe Gly Val Lys Cys
      100           105           110
Lys His Cys Arg Leu Lys Cys His Asn Lys Cys Thr Lys Glu Ala Pro
      115           120           125
Ala Cys Arg Ile Ser Phe Leu Pro Leu Thr Arg Leu Arg Arg Thr Glu
      130           135           140
Ser Val Pro Ser Asp Ile Asn Asn Pro Val Asp Arg Ala Ala Glu Pro
      145           150           155           160
His Phe Gly Thr Leu Pro Lys Ala Leu Thr Lys Lys Glu His Pro Pro
      165           170           175
Ala Met Asn His Leu Asp Ser Ser Ser Asn Pro Ser Ser Thr Thr Phe
      180           185           190
Ser Thr Pro Ser Ser Pro Ala Pro Phe Pro Thr Ser Ser Asn Pro Ser
      195           200           205
Ser Ala Thr Thr Pro Pro Asn Pro Ser Pro Gly Gln Arg Asp Ser Arg
      210           215           220
Phe Asn Phe Pro Ser Cys Ala Tyr Phe Ile His His Arg Gln Gln Phe
      225           230           235           240
Ile Phe Pro Asp Ile Ser Ala Phe Ala His Ala Ala Pro Leu Pro Glu
      245           250           255
Ala Ala Asp Gly Thr Arg Leu Asp Asp Gln Pro Lys Ala Asp Val Leu
      260           265           270
Glu Ala His Glu Ala Glu Ala Glu Glu Pro Glu Ala Gly Lys Ser Glu
      275           280           285
Ala Glu Asp Asp Glu Asp Glu Val Asp Asp Leu Pro Ser Ser Arg Arg
      290           295           300
Pro Trp Arg Gly Pro Ile Ser Arg Lys Ala Ser Gln Thr Ser Val Tyr
      305           310           315           320
Leu Gln Glu Trp Asp Ile Pro Phe Glu Gln Val Glu Leu Gly Glu Pro
      325           330           335
Ile Gly Gln Gly Arg Trp Gly Arg Val His Arg Gly Arg Trp His Gly
      340           345           350
Glu Val Ala Ile Arg Leu Leu Glu Met Asp Gly His Asn Gln Asp His
      355           360           365
Leu Lys Leu Phe Lys Lys Glu Val Met Asn Tyr Arg Gln Thr Arg His
      370           375           380
Glu Asn Val Val Leu Phe Met Gly Ala Cys Met Asn Pro Pro His Leu
      385           390           395           400
Ala Ile Ile Thr Ser Phe Cys Lys Gly Arg Thr Leu His Ser Phe Val
      405           410           415
Arg Asp Pro Lys Thr Ser Leu Asp Ile Asn Lys Thr Arg Gln Ile Ala
      420           425           430
Gln Glu Ile Ile Lys Gly Met Gly Tyr Leu His Ala Lys Gly Ile Val
      435           440           445
His Lys Asp Leu Lys Ser Arg Asn Val Phe Tyr Asp Asn Gly Lys Val
      450           455           460
Val Ile Thr Asp Phe Gly Leu Phe Gly Ile Ser Gly Val Val Pro Glu

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465		470		475		480
Gly Arg Arg Glu Asn Gln Leu Lys Leu Ser His Asp Trp Leu Cys Tyr						
	485		490		495	
Leu Ala Pro Glu Ile Val Arg Glu Met Thr Pro Gly Lys Asp Glu Asp						
	500		505		510	
Gln Leu Pro Phe Ser Lys Ala Ala Asp Val Tyr Ala Phe Gly Thr Val						
	515		520		525	
Trp Tyr Glu Leu Gln Ala Arg Asp Trp Pro Leu Lys Asn Gln Ala Ala						
	530		535		540	
Glu Ala Ser Ile Trp Gln Ile Gly Ser Gly Glu Gly Met Lys Arg Val						
545		550		555		560
Leu Thr Ser Val Ser Leu Gly Lys Glu Val Ser Glu Asn Leu Ser Ala						
	565		570		575	
Cys Trp Ala Phe Asp Leu Gln Glu Arg Pro Ser Phe Ser Leu Leu Met						
	580		585		590	
Asp Met Leu Glu Lys Leu Pro Lys Leu Asn Arg Arg Leu Ser His Pro						
	595		600		605	
Gly His Phe Xaa Lys Ser Ala Asp Ile Asn Ser Ser Lys Val Val Pro						
610		615		620		
Arg Phe Glu Arg Phe Gly Leu Gly Val Leu Glu Ser Ser Asn Pro Lys						
625		630		635		640
Met						
641						

<210> 3762

<211> 527

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(526)

<223> Xaa = any amino acid or nothing

<400> 3762

Met Ala His Tyr Ile Thr Phe Leu Cys Met Val Leu Val Leu Leu Leu															
1		5		10		15									
Gln Asn Ser Val Leu Ala Glu Asp Gly Glu Val Arg Ser Ser Cys Arg															
	20		25		30										
Thr Ala Pro Thr Asp Leu Val Phe Ile Leu Asp Gly Ser Tyr Ser Val															
	35		40		45										
Gly Pro Glu Asn Phe Glu Ile Val Lys Lys Trp Leu Val Asn Ile Thr															
	50		55		60										
Lys Asn Phe Asp Ile Gly Pro Lys Phe Ile Gln Val Gly Val Val Gln															
65		70		75		80									
Tyr Ser Asp Tyr Pro Val Leu Glu Ile Pro Leu Gly Ser Tyr Asp Ser															
	85		90		95										
Gly Glu His Leu Thr Ala Ala Val Glu Ser Ile Leu Tyr Leu Gly Gly															
	100		105		110										
Asn Thr Lys Thr Gly Lys Ala Ile Gln Phe Ala Leu Asp Tyr Leu Phe															
	115		120		125										
Ala Lys Ser Ser Arg Phe Leu Thr Lys Ile Ala Val Val Leu Thr Asp															
	130		135		140										
Gly Lys Ser Gln Asp Asp Val Lys Asp Ala Ala Gln Ala Ala Arg Asp															
145		150		155		160									
Ser Lys Ile Thr Leu Phe Ala Ile Gly Val Gly Ser Glu Thr Glu Asp															
	165		170		175										
Ala Glu Leu Arg Ala Ile Ala Asn Lys Pro Ser Ser Thr Tyr Val Phe															
	180		185		190										
Tyr Val Glu Asp Tyr Ile Ala Ile Ser Lys Ile Arg Glu Val Met Lys															
	195		200		205										
Gln Lys Leu Cys Glu Glu Ser Val Cys Pro Thr Arg Ile Pro Val Ala															

210	215	220
Ala Arg Asp Glu Arg Gly Phe Asp Ile Leu Leu Gly Leu Asp Val Asn		
225	230	235
Lys Lys Val Lys Lys Arg Ile Gln Leu Ser Pro Lys Lys Ile Lys Gly		240
	245	250
Tyr Glu Val Thr Ser Lys Val Asp Leu Ser Glu Leu Thr Ser Asn Val		255
	260	265
Phe Pro Glu Gly Leu Pro Pro Ser Tyr Val Phe Val Ser Thr Gln Arg		270
	275	280
Phe Lys Val Lys Lys Ile Trp Asp Leu Trp Arg Ile Leu Thr Ile Asp		285
	290	295
Gly Xaa Pro Gln Ile Ala Val Thr Leu Asn Gly Val Asp Lys Ile Leu		300
305	310	315
Leu Phe Thr Thr Thr Ser Val Ile Asn Gly Ser Gln Val Val Thr Phe		320
	325	330
Ala Asn Pro Gln Val Lys Thr Leu Phe Asp Glu Gly Trp His Gln Ile		335
	340	345
Arg Leu Leu Val Thr Glu Gln Asp Val Thr Leu Tyr Ile Asp Asp Gln		350
	355	360
Gln Ile Glu Asn Lys Pro Leu His Pro Val Leu Gly Ile Leu Ile Asn		365
	370	375
Gly Gln Thr Gln Ile Gly Lys Tyr Ser Gly Lys Glu Glu Thr Val Gln		380
385	390	395
Phe Asp Val Gln Lys Leu Arg Ile Tyr Cys Asp Pro Glu Gln Asn Asn		400
	405	410
Arg Glu Thr Ala Cys Glu Ile Pro Gly Phe Cys Leu Asn Gly Pro Ser		415
	420	425
Asp Val Gly Ser Thr Pro Ala Pro Cys Ile Cys Pro Pro Gly Lys Pro		430
	435	440
Gly Leu Gln Gly Pro Lys Gly Asp Pro Gly Leu Pro Gly Asn Pro Gly		445
	450	455
Tyr Pro Gly Gln Pro Gly Gln Asp Gly Lys Pro Val Ser Thr Glu Ser		460
465	470	475
Leu Val Ile Ser Gly Ile Ser Gly Ile Thr Gly Tyr Gln Gly Ile Ala		480
	485	490
Gly Thr Pro Gly Val Pro Gly Ser Pro Gly Ile Gln Gly Ala Arg Gly		495
	500	505
Leu Pro Gly Tyr Lys Gly Glu Pro Gly Arg Asp Gly Asp Lys		510
	515	520
		525 526

<210> 3763

<211> 422

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(420)

<223> Xaa = any amino acid or nothing

<400> 3763

Cys Lys Val Trp Arg Asn Pro Leu Asn Leu Phe Arg Gly Ala Glu Tyr	
1	5
Asn Arg Tyr Thr Trp Val Thr Gly Arg Glu Pro Leu Thr Tyr Tyr Asp	
	20
Met Asn Leu Ser Ala Gln Asp His Gln Thr Phe Phe Thr Cys Asp Ser	
	35
Asp His Leu Arg Pro Ala Asp Ala Ile Met Gln Lys Ala Trp Arg Glu	
	50
Arg Asn Pro Gln Ala Arg Ile Ser Ala Ala His Glu Ala Leu Glu Ile	
65	70
Asn Glu Cys Ala Thr Ala Tyr Ile Leu Leu Ala Glu Glu Glu Ala Thr	
	75
	80

				85					90				95				
Thr	Ile	Ala	Glu	Ala	Glu	Lys	Leu	Phe	Lys	Gln	Ala	Leu	Lys	Ala	Gly		
			100					105					110				
Asp	Gly	Cys	Tyr	Arg	Arg	Ser	Gln	Gln	Leu	Gln	His	His	Gly	Ser	Gln		
		115					120						125				
Tyr	Glu	Ala	Gln	His	Ser	Val	Leu	Tyr	Leu	Pro	Leu	Gln	Thr	Arg	His		
		130				135						140					
Gln	Cys	Leu	Gly	Val	His	Gln	Lys	Lys	Ala	Ser	Asn	Val	Cys	Gln	Lys		
145				150					155					160			
Thr	Arg	Glu	Asp	Gln	Gly	Ser	Ser	Glu	Asn	Asp	Glu	Arg	Phe	Asn	Glu		
			165					170						175			
Gly	Val	Pro	Pro	Ser	Glu	Tyr	Val	Gln	Tyr	Pro	Xaa	Lys	Pro	Phe	Lys		
		180					185						190				
Ala	Leu	Leu	Glu	Leu	Gln	Ala	Tyr	Ala	Asp	Val	Gln	Ala	Val	Leu	Ala		
		195				200						205					
Lys	Tyr	Asp	Asp	Ile	Ser	Leu	Pro	Lys	Ser	Ala	Thr	Ile	Cys	Tyr	Thr		
	210					215					220						
Ala	Ala	Leu	Leu	Lys	Ala	Arg	Ala	Val	Ser	Asp	Lys	Phe	Ser	Pro	Glu		
225				230					235					240			
Ala	Ala	Ser	Arg	Arg	Gly	Leu	Ser	Thr	Ala	Glu	Met	Asn	Ala	Val	Glu		
			245					250					255				
Ala	Ile	His	Arg	Ala	Val	Glu	Phe	Asn	Pro	His	Val	Pro	Lys	Tyr	Leu		
		260					265						270				
Leu	Glu	Met	Lys	Ser	Leu	Ile	Leu	Pro	Pro	Glu	His	Ile	Leu	Lys	Arg		
	275					280						285					
Gly	Asp	Ser	Glu	Ala	Ile	Ala	Tyr	Ala	Phe	Phe	His	Leu	Ala	His	Trp		
	290				295						300						
Lys	Arg	Val	Glu	Gly	Ala	Leu	Asn	Leu	Leu	His	Cys	Thr	Trp	Glu	Gly		
305				310					315					320			
Thr	Phe	Arg	Met	Ile	Pro	Tyr	Pro	Leu	Glu	Lys	Gly	His	Leu	Phe	Tyr		
			325					330					335				
Pro	Tyr	Pro	Ile	Cys	Thr	Glu	Thr	Ala	Asp	Arg	Glu	Leu	Leu	Pro	Ser		
		340					345					350					
Phe	His	Glu	Val	Ser	Val	Tyr	Pro	Lys	Lys	Glu	Leu	Pro	Phe	Phe	Ile		
	355					360					365						
Leu	Phe	Thr	Ala	Gly	Leu	Cys	Ser	Phe	Thr	Ala	Met	Leu	Ala	Leu	Leu		
	370				375						380						
Thr	His	Gln	Phe	Pro	Glu	Leu	Met	Gly	Val	Phe	Ala	Lys	Ala	Val	Ser		
385				390					395					400			
Val	Cys	Leu	Glu	Gly	Gly	Leu	Gly	Glu	Trp	Met	Gly	Lys	Ala	Lys	Gly		
			405					410					415				
Ile	Lys	Ala	Ala														
			420														

<210> 3764
 <211> 336
 <212> PRT
 <213> Homo sapiens

<400> 3764
 Arg Ser Ala Asp Gly Leu Cys Gly Asn Lys Asp Arg Glu Arg Gly Asn
 1 5 10 15
 Glu Phe Thr Arg Asn Gln Gln Ala Ala Gln Glu Val Val Asn Pro Lys
 20 25 30
 Lys Lys Met Lys Lys Lys Lys Tyr Val Asn Ser Gly Thr Val Thr Leu
 35 40 45
 Leu Ser Phe Ala Val Glu Ser Glu Cys Thr Phe Leu Asp Tyr Ile Lys
 50 55 60
 Gly Gly Thr Gln Ile Asn Phe Thr Val Ala Ile Asp Phe Thr Ala Ser
 65 70 75 80
 Asn Gly Asn Pro Ser Gln Ser Thr Ser Leu His Tyr Met Ser Pro Tyr

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<210> 3765
<211> 1095
<212> PRT
<213> Homo sapiens
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<400> 3765															
Leu	Gly	Met	Met	Asp	Ser	Pro	Lys	Ile	Gly	Asn	Gly	Leu	Pro	Val	Ile
1				5					10					15	
Gly	Pro	Gly	Thr	Asp	Ile	Gly	Ile	Ser	Ser	Leu	His	Met	Val	Gly	Tyr
			20					25					30		
Leu	Gly	Lys	Asn	Phe	Asp	Ser	Ala	Lys	Val	Pro	Ser	Asp	Glu	Tyr	Cys
		35					40					45			
Pro	Ala	Cys	Lys	Glu	Lys	Gly	Lys	Leu	Lys	Ala	Leu	Lys	Thr	Tyr	Arg
	50					55					60				
Ile	Ser	Phe	Gln	Glu	Ser	Ile	Phe	Leu	Cys	Glu	Asp	Leu	Gln	Cys	Ile
65					70					75					80
Tyr	Pro	Leu	Gly	Ser	Lys	Ser	Leu	Asn	Asn	Leu	Ile	Ser	Pro	Asp	Leu
				85					90					95	
Glu	Glu	Cys	His	Thr	Pro	His	Lys	Pro	Gln	Lys	Arg	Lys	Ser	Leu	Glu
			100					105					110		
Ser	Ser	Tyr	Lys	Asp	Ser	Leu	Leu	Leu	Ala	Asn	Ser	Lys	Lys	Thr	Arg
		115					120					125			
Asn	Tyr	Ile	Ala	Ile	Asp	Gly	Gly	Lys	Val	Leu	Asn	Ser	Lys	His	Asn
	130					135					140				
Gly	Glu	Val	Tyr	Asp	Glu	Thr	Ser	Ser	Asn	Leu	Pro	Asp	Ser	Ser	Gly
145					150					155					160
Gln	Gln	Asn	Pro	Ile	Arg	Thr	Ala	Asp	Ser	Leu	Glu	Arg	Asn	Glu	Ile
				165					170					175	
Leu	Glu	Ala	Asp	Thr	Val	Asp	Met	Ala	Thr	Thr	Lys	Asp	Pro	Ala	Thr

5519

690 695 700
Lys Gln Phe Leu Thr Pro Lys Thr Glu Gln Leu Lys Pro Glu Arg Val
705 710 715 720
Thr Ser Gln Val Ser Asn Leu Lys Lys Lys Glu Thr Thr Ala Asp Ser
725 730 735
Gln Thr Thr Thr Ser Lys Ser Leu Gln Asn Gln Ser Leu Lys Glu Asn
740 745 750
Gln Lys Lys Pro Phe Val Gly Ser Trp Val Lys Gly Leu Ile Ser Arg
755 760 765
Gly Ala Ser Phe Met Pro Leu Cys Val Ser Ala His Asn Arg Asn Thr
770 775 780
Ile Thr Asp Leu Gln Pro Ser Val Lys Gly Val Asn Asn Phe Gly Gly
785 790 795 800
Phe Lys Thr Lys Gly Ile Asn Gln Lys Ala Ser His Val Ser Lys Lys
805 810 815
Ala Arg Lys Ser Ala Ser Lys Pro Pro Pro Ile Ser Lys Pro Pro Ala
820 825 830
Gly Pro Pro Ser Ser Asn Gly Thr Ala Ala His Pro His Ala His Ala
835 840 845
Ala Ser Glu Val Leu Glu Lys Ser Gly Ser Thr Ser Cys Gly Ala Gln
850 855 860
Leu Asn His Ser Ser Tyr Gly Asn Gly Ile Ser Ser Ala Asn His Glu
865 870 875 880
Asp Leu Val Glu Gly Gln Ile His Lys Leu Arg Leu Lys Leu Arg Lys
885 890 895
Lys Leu Lys Ala Glu Lys Lys Lys Leu Ala Ala Leu Met Ser Ser Pro
900 905 910
Gln Ser Arg Thr Val Arg Ser Glu Asn Leu Glu Gln Val Pro Gln Asp
915 920 925
Gly Ser Pro Asn Asp Cys Glu Ser Ile Glu Asp Leu Leu Asn Glu Leu
930 935 940
Pro Tyr Pro Ile Asp Ile Ala Asn Glu Ser Ala Cys Thr Thr Val Pro
945 950 955 960
Gly Val Ser Leu Tyr Ser Ser Gln Thr His Glu Glu Ile Leu Ala Glu
965 970 975
Leu Leu Ser Pro Thr Pro Val Ser Thr Glu Leu Ser Glu Asn Gly Glu
980 985 990
Gly Asp Phe Arg Tyr Leu Gly Met Gly Asp Ser His Ile Pro Pro Pro
995 1000 1005
Val Pro Ser Glu Phe Asn Asp Val Ser Gln Asn Thr His Leu Arg Gln
1010 1015 1020
Asp His Asn Tyr Cys Ser Pro Thr Lys Lys Asn Pro Cys Glu Val Gln
1025 1030 1035 1040
Pro Asp Ser Leu Thr Asn Asn Ala Cys Val Arg Thr Leu Asn Leu Glu
1045 1050 1055
Ser Pro Met Lys Thr Asp Ile Phe Asp Glu Phe Phe Ser Ser Ser Ala
1060 1065 1070
Leu Asn Ala Leu Ala Asn Asp Thr Leu Asp Leu Pro His Phe Asp Glu
1075 1080 1085
Tyr Leu Phe Glu Asn Tyr
1090 1094

<210> 3766

<211> 541

<212> PRT

<213> Homo sapiens

<400> 3766

Ala Gln Gln Ile Val Tyr Arg Asn Val Met Leu Glu Asn Tyr Lys Asn
1 5 10 15
Leu Val Ser Leu Gly Tyr Gln Leu Thr Lys Pro Asp Val Ile Leu Arg

5521

530

535

540

<210> 3767

<211> 541

<212> PRT

<213> Homo sapiens

<400> 3767

Ala	Gln	Gln	Ile	Val	Tyr	Arg	Asn	Val	Met	Leu	Glu	Asn	Tyr	Lys	Asn
1				5					10					15	
Leu	Val	Ser	Leu	Gly	Tyr	Gln	Leu	Thr	Lys	Pro	Asp	Val	Ile	Leu	Arg
			20					25					30		
Leu	Glu	Lys	Gly	Glu	Glu	Pro	Trp	Leu	Val	Glu	Arg	Glu	Ile	His	Gln
		35					40					45			
Glu	Thr	His	Pro	Asp	Ser	Glu	Thr	Ala	Phe	Glu	Ile	Lys	Ser	Ser	Val
	50					55					60				
Ser	Ser	Arg	Ser	Ile	Phe	Lys	Asp	Lys	Gln	Ser	Cys	Asp	Ile	Lys	Met
65					70				75						80
Glu	Gly	Met	Ala	Arg	Asn	Asp	Leu	Trp	Tyr	Leu	Ser	Leu	Glu	Glu	Val
			85					90						95	
Trp	Lys	Cys	Arg	Asp	Gln	Leu	Asp	Lys	Tyr	Gln	Glu	Asn	Pro	Glu	Arg
			100					105					110		
His	Leu	Arg	Gln	Val	Ala	Phe	Thr	Gln	Lys	Lys	Val	Leu	Thr	Gln	Glu
	115						120					125			
Arg	Val	Ser	Glu	Ser	Gly	Lys	Tyr	Gly	Gly	Asn	Cys	Leu	Leu	Pro	Ala
	130					135					140				
Gln	Leu	Val	Leu	Arg	Glu	Tyr	Phe	His	Lys	Arg	Asp	Ser	His	Thr	Lys
145					150				155						160
Ser	Leu	Lys	His	Asp	Leu	Val	Leu	Asn	Gly	His	Gln	Asp	Ser	Cys	Ala
			165					170						175	
Ser	Asn	Ser	Asn	Glu	Cys	Gly	Gln	Thr	Phe	Cys	Gln	Asn	Ile	His	Leu
			180					185					190		
Ile	Gln	Phe	Ala	Arg	Thr	His	Thr	Gly	Asp	Lys	Ser	Tyr	Lys	Cys	Pro
	195						200					205			
Asp	Asn	Asp	Asn	Ser	Leu	Thr	His	Gly	Ser	Ser	Leu	Gly	Ile	Ser	Lys
	210					215					220				
Gly	Ile	His	Arg	Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Phe
225					230				235						240
Phe	Ser	Trp	Arg	Ser	Asn	Leu	Thr	Arg	His	Gln	Leu	Ile	His	Thr	Gly
			245					250						255	
Glu	Lys	Pro	Tyr	Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Arg	Ser
			260					265					270		
Ser	His	Leu	Ile	Gly	His	Gln	Lys	Thr	His	Thr	Gly	Glu	Glu	Pro	Tyr
	275						280					285			
Glu	Cys	Lys	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Trp	Phe	Ser	His	Leu	Val
	290					295					300				
Thr	His	Gln	Arg	Thr	His	Thr	Gly	Asp	Lys	Leu	Tyr	Thr	Cys	Asn	Gln
305					310					315					320
Cys	Gly	Lys	Ser	Phe	Val	His	Ser	Ser	Arg	Leu	Ile	Arg	His	Gln	Arg
			325					330						335	
Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Pro	Glu	Cys	Gly	Lys	Ser
			340					345					350		
Phe	Arg	Gln	Ser	Thr	His	Leu	Ile	Leu	His	Gln	Arg	Thr	His	Val	Arg
	355						360					365			
Val	Arg	Pro	Tyr	Glu	Cys	Asn	Glu	Cys	Gly	Lys	Ser	Tyr	Ser	Gln	Arg
	370					375					380				
Ser	His	Leu	Val	Val	His	His	Arg	Ile	His	Thr	Gly	Leu	Lys	Pro	Phe
385					390				395						400
Glu	Cys	Lys	Asp	Cys	Gly	Lys	Cys	Phe	Ser	Arg	Ser	Ser	His	Leu	Tyr
			405					410						415	
Ser	His	Gln	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	His	Asp

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<210> 3768
<211> 696
<212> PRT
<213> Homo sapiens
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5523

305		310		315		320									
Leu	Gln	Lys	Asp	Lys	Glu	Tyr	Leu	Asn	Arg	Gln	Asn	Met	Glu	Leu	Ser
				325					330						335
Val	Arg	Cys	Ala	His	Glu	Glu	Asp	Arg	Leu	Glu	Arg	Leu	Gln	Ala	Gln
			340					345						350	
Leu	Glu	Glu	Ser	Lys	Lys	Ala	Arg	Glu	Glu	Met	Tyr	Glu	Lys	Tyr	Val
		355					360					365			
Ala	Ser	Arg	Asp	His	Tyr	Lys	Thr	Glu	Tyr	Glu	Asn	Lys	Leu	His	Asp
	370					375					380				
Glu	Leu	Glu	Gln	Ile	Arg	Leu	Lys	Thr	Asn	Gln	Glu	Ile	Asp	Gln	Leu
385				390					395						400
Arg	Asn	Ala	Ser	Arg	Glu	Met	Tyr	Glu	Arg	Glu	Asn	Arg	Asn	Leu	Arg
			405					410						415	
Glu	Ala	Arg	Asp	Asn	Ala	Val	Ala	Glu	Lys	Glu	Arg	Ala	Val	Met	Ala
		420					425						430		
Glu	Lys	Asp	Ala	Leu	Glu	Lys	His	Asp	Gln	Leu	Leu	Asp	Arg	Tyr	Arg
	435					440					445				
Glu	Leu	Gln	Leu	Ser	Thr	Glu	Ser	Lys	Val	Thr	Glu	Phe	Leu	His	Gln
450					455						460				
Ser	Lys	Leu	Lys	Ser	Phe	Glu	Ser	Glu	Arg	Val	Gln	Leu	Leu	Gln	Glu
465				470					475						480
Glu	Thr	Ala	Arg	Asn	Leu	Thr	Gln	Cys	Gln	Leu	Glu	Cys	Glu	Lys	Tyr
			485				490						495		
Gln	Lys	Lys	Leu	Glu	Val	Leu	Thr	Lys	Glu	Phe	Tyr	Ser	Leu	Gln	Ala
		500					505						510		
Ser	Ser	Glu	Lys	Arg	Ile	Thr	Glu	Leu	Gln	Ala	Gln	Asn	Ser	Glu	His
	515					520						525			
Gln	Ala	Arg	Leu	Asp	Ile	Tyr	Glu	Lys	Leu	Glu	Lys	Glu	Leu	Asp	Glu
530				535							540				
Ile	Ile	Met	Gln	Thr	Ala	Glu	Ile	Glu	Asn	Glu	Asp	Glu	Ala	Glu	Arg
545				550				555							560
Val	Leu	Phe	Ser	Tyr	Gly	Tyr	Gly	Ala	Asn	Val	Pro	Thr	Thr	Ala	Lys
			565				570							575	
Arg	Arg	Leu	Lys	Gln	Ser	Val	His	Leu	Ala	Arg	Arg	Val	Leu	Gln	Leu
		580				585							590		
Glu	Lys	Gln	Asn	Ser	Leu	Ile	Leu	Lys	Arg	Ser	Gly	Thr	Ser	Lys	Gly
	595					600					605				
Pro	Ser	Asn	Thr	Ala	Phe	Thr	Arg	Ser	Leu	Thr	Glu	Ala	Asn	Ser	Leu
610					615						620				
Leu	Asn	Gln	Thr	Gln	Gln	Pro	Tyr	Arg	Tyr	Leu	Ile	Glu	Ser	Val	Arg
625				630				635							640
Gln	Arg	Asp	Ser	Lys	Ile	Asp	Ser	Leu	Thr	Glu	Ser	Ile	Ala	Gln	Leu
		645				650							655		
Glu	Arg	Lys	Asp	Val	Ser	Asn	Leu	Asn	Lys	Glu	Lys	Ser	Ala	Leu	Leu
		660				665						670			
Gln	Thr	Asn	Gly	Ile	Lys	Met	Ala	Leu	Asp	Leu	Asp	Gln	Leu	Leu	Asn
	675					680						685			
His	Pro														
690															

<210> 3769

<211> 766

<212> PRT

<213> Homo sapiens

<400> 3769

Asp	Ala	Ala	Glu	Phe	Arg	Val	Val	Ala	Asp	Ala	Met	Lys	Val	Ile	Gly
1				5					10					15	
Phe	Lys	Pro	Glu	Glu	Ile	Gln	Thr	Val	Tyr	Lys	Ile	Leu	Ala	Ala	Ile
		20						25				30			
Leu	His	Leu	Gly	Asn	Leu	Lys	Phe	Val	Val	Asp	Gly	Asp	Thr	Pro	Leu

		35				40				45					
Ile	Glu	Asn	Gly	Lys	Val	Val	Ser	Ile	Ile	Ala	Glu	Leu	Leu	Ser	Thr
	50					55					60				
Lys	Thr	Asp	Met	Val	Glu	Lys	Ala	Leu	Leu	Tyr	Arg	Thr	Val	Ala	Thr
	65				70					75					80
Gly	Arg	Asp	Ile	Ile	Asp	Lys	Gln	His	Thr	Glu	Gln	Glu	Ala	Ser	Tyr
				85					90					95	
Gly	Arg	Asp	Ala	Phe	Ala	Lys	Ala	Ile	Tyr	Glu	Arg	Leu	Phe	Cys	Trp
			100				105						110		
Ile	Val	Thr	Arg	Ile	Asn	Asp	Ile	Ile	Glu	Val	Lys	Asn	Tyr	Asp	Thr
	115						120					125			
Thr	Ile	His	Gly	Lys	Asn	Thr	Val	Ile	Gly	Val	Leu	Asp	Ile	Tyr	Gly
	130					135					140				
Phe	Glu	Ile	Phe	Asp	Asn	Asn	Ser	Phe	Glu	Gln	Phe	Cys	Ile	Asn	Tyr
	145				150				155						160
Cys	Asn	Glu	Lys	Leu	Gln	Gln	Leu	Phe	Ile	Gln	Leu	Val	Leu	Lys	Gln
				165					170					175	
Glu	Gln	Glu	Glu	Tyr	Gln	Arg	Glu	Gly	Ile	Pro	Trp	Lys	His	Ile	Asp
			180					185					190		
Tyr	Phe	Asn	Asn	Gln	Ile	Ile	Val	Asp	Leu	Val	Glu	Gln	Gln	His	Lys
	195						200					205			
Gly	Ile	Ile	Ala	Ile	Leu	Asp	Asp	Ala	Cys	Met	Asn	Val	Gly	Lys	Val
	210					215					220				
Thr	Asp	Glu	Met	Phe	Leu	Glu	Ala	Leu	Asn	Ser	Lys	Leu	Gly	Lys	His
	225				230						235				240
Ala	His	Phe	Ser	Ser	Arg	Lys	Leu	Cys	Ala	Ser	Asp	Lys	Ile	Leu	Glu
				245					250					255	
Phe	Asp	Arg	Asp	Phe	Arg	Ile	Arg	His	Tyr	Ala	Gly	Asp	Val	Val	Tyr
			260				265						270		
Ser	Val	Ile	Gly	Phe	Ile	Asp	Lys	Asn	Lys	Asp	Thr	Leu	Phe	Gln	Asp
	275						280					285			
Phe	Lys	Arg	Leu	Met	Tyr	Asn	Ser	Ser	Asn	Pro	Val	Leu	Lys	Asn	Met
	290					295					300				
Trp	Pro	Glu	Gly	Lys	Leu	Ser	Ile	Thr	Glu	Val	Thr	Lys	Arg	Pro	Leu
	305				310					315					320
Thr	Ala	Ala	Thr	Leu	Phe	Lys	Asn	Ser	Met	Ile	Ala	Leu	Val	Asp	Asn
				325					330					335	
Leu	Ala	Ser	Lys	Glu	Pro	Tyr	Tyr	Val	Arg	Cys	Ile	Lys	Pro	Asn	Asp
			340					345					350		
Lys	Lys	Ser	Pro	Gln	Ile	Phe	Asp	Asp	Glu	Arg	Cys	Arg	His	Gln	Val
	355						360				365				
Glu	Tyr	Leu	Gly	Leu	Leu	Glu	Asn	Val	Arg	Val	Arg	Arg	Ala	Gly	Phe
	370					375					380				
Ala	Phe	Arg	Gln	Thr	Tyr	Glu	Lys	Phe	Leu	His	Arg	Tyr	Lys	Met	Ile
	385				390					395					400
Ser	Glu	Phe	Thr	Trp	Pro	Asn	His	Asp	Leu	Pro	Ser	Asp	Lys	Glu	Ala
				405				410						415	
Val	Lys	Lys	Leu	Ile	Glu	Arg	Cys	Gly	Phe	Gln	Asp	Asp	Val	Ala	Tyr
			420					425					430		
Gly	Lys	Thr	Lys	Ile	Phe	Ile	Arg	Thr	Pro	Arg	Thr	Leu	Phe	Thr	Leu
	435						440					445			
Glu	Glu	Leu	Arg	Ala	Gln	Met	Leu	Ile	Arg	Ile	Val	Leu	Phe	Leu	Gln
	450					455					460				
Lys	Val	Trp	Arg	Gly	Thr	Leu	Ala	Arg	Met	Arg	Tyr	Lys	Arg	Thr	Lys
	465				470					475					480
Ala	Ala	Leu	Thr	Ile	Ile	Arg	Tyr	Tyr	Arg	Arg	Tyr	Lys	Val	Lys	Ser
				485				490						495	
Tyr	Ile	His	Glu	Val	Ala	Arg	Arg	Phe	His	Gly	Val	Lys	Thr	Met	Arg
			500					505					510		
Asp	Tyr	Gly	Lys	His	Val	Lys	Trp	Pro	Ser	Pro	Pro	Lys	Val	Leu	Arg
	515						520					525			
Arg	Phe	Glu	Glu	Ala	Leu	Gln	Thr	Ile	Phe	Asn	Arg	Trp	Arg	Ala	Ser
	530					535					540				
Gln	Leu	Ile	Lys	Ser	Ile	Pro	Ala	Ser	Asp	Leu	Pro	Gln	Val	Arg	Ala

545		550		555		560
Lys Val Ala Ala Val Glu Met Leu Lys Gly Gln Arg Ala Asp Leu Gly						
	565		570			575
Leu Gln Arg Ala Trp Glu Gly Asn Tyr Leu Ala Ser Lys Pro Asp Thr						
	580		585			590
Pro Gln Thr Ser Gly Thr Phe Val Pro Val Ala Asn Glu Leu Lys Arg						
	595		600			605
Lys Asp Lys Tyr Met Asn Val Leu Phe Ser Cys His Val Arg Lys Val						
	610		615			620
Asn Arg Phe Ser Lys Val Glu Asp Arg Ala Ile Phe Val Thr Asp Arg						
	625		630			635
His Leu Tyr Lys Met Asp Pro Thr Lys Gln Tyr Lys Val Met Lys Thr						
	645		650			655
Ile Pro Leu Tyr Asn Leu Thr Gly Leu Ser Val Ser Asn Gly Lys Asp						
	660		665			670
Gln Leu Val Val Phe His Thr Lys Asp Asn Lys Asp Leu Ile Val Cys						
	675		680			685
Leu Phe Ser Lys Gln Pro Thr His Glu Ser Arg Ile Gly Glu Leu Val						
	690		695			700
Gly Val Leu Val Asn His Phe Lys Ser Glu Lys Arg His Leu Gln Val						
	705		710			715
Asn Val Thr Asn Pro Val Gln Cys Ser Leu His Gly Lys Lys Cys Thr						
	725		730			735
Val Ser Val Glu Thr Arg Leu Asn Gln Pro Gln Pro Asp Phe Thr Lys						
	740		745			750
Asn Arg Ser Gly Phe Ile Leu Ser Val Pro Gly Asn						
	755		760			764

<210> 3770

<211> 2098

<212> PRT

<213> Homo sapiens

<400> 3770

His Lys Val Ala Ala Pro Asp Val Val Val Pro Thr Leu Asp Thr Val														
1		5				10								15
Arg His Glu Ala Leu Leu Tyr Thr Trp Leu Ala Glu His Lys Pro Leu														
	20					25								30
Val Leu Cys Gly Pro Pro Gly Ser Gly Lys Thr Met Thr Leu Phe Ser														
	35					40								45
Ala Leu Arg Ala Leu Pro Asp Met Glu Val Val Gly Leu Asn Phe Ser														
	50					55								60
Ser Ala Thr Thr Pro Glu Leu Leu Leu Lys Thr Phe Asp His Tyr Cys														
	65					70								75
Glu Tyr Arg Arg Thr Pro Asn Gly Val Val Leu Ala Pro Val Gln Leu														
	85													90
Gly Lys Trp Leu Val Leu Phe Cys Asp Glu Ile Asn Leu Pro Asp Met														
	100					105								110
Asp Lys Tyr Gly Thr Gln Arg Val Ile Ser Phe Ile Arg Gln Met Val														
	115					120								125
Glu His Gly Gly Phe Tyr Arg Thr Ser Asp Gln Thr Trp Val Lys Leu														
	130					135								140
Glu Arg Ile Gln Phe Val Gly Ala Cys Asn Pro Pro Thr Asp Pro Gly														
	145					150								155
Arg Lys Pro Leu Ser His Arg Phe Leu Arg His Val Pro Val Val Tyr														
	165													170
Val Asp Tyr Pro Gly Pro Ala Ser Leu Thr Gln Ile Tyr Gly Thr Phe														
	180					185								190
Asn Arg Ala Met Leu Arg Leu Ile Pro Ser Leu Arg Thr Tyr Ala Glu														
	195					200								205
Pro Leu Thr Ala Ala Met Val Glu Phe Tyr Thr Met Ser Gln Glu Arg														

210	215	220
Phe Thr Gln Asp Thr Gln	Pro His Tyr Ile Tyr	Ser Pro Arg Glu Met
225	230	235
Thr Arg Trp Val Arg Gly	Ile Phe Glu Ala Leu	Arg Pro Leu Glu Thr
245	250	255
Leu Pro Val Glu Gly Leu	Ile Arg Ile Trp Ala	His Glu Ala Leu Arg
260	265	270
Leu Phe Gln Asp Arg Leu	Val Glu Asp Glu Glu	Arg Arg Trp Thr Asp
275	280	285
Glu Asn Ile Asp Thr Val	Ala Leu Lys His Phe	Pro Asn Ile Asp Arg
290	295	300
Glu Lys Ala Met Ser Arg	Pro Ile Leu Tyr Ser	Asn Trp Leu Ser Lys
305	310	315
Asp Tyr Ile Pro Val Asp	Gln Glu Glu Leu Arg	Asp Tyr Val Lys Ala
325	330	335
Arg Leu Lys Val Phe Tyr	Glu Glu Glu Leu Asp	Val Pro Leu Val Leu
340	345	350
Phe Asn Glu Val Leu Asp	His Val Leu Arg Ile	Asp Arg Ile Phe Arg
355	360	365
Gln Pro Gln Gly His Leu	Leu Leu Ile Gly Val	Ser Gly Ala Gly Lys
370	375	380
Thr Thr Leu Ser Arg Phe	Val Ala Trp Met Asn	Gly Leu Ser Val Tyr
385	390	395
Gln Ile Lys Val His Arg	Lys Tyr Thr Gly Glu	Asp Phe Asp Glu Asp
405	410	415
Leu Arg Thr Val Leu Arg	Arg Ser Gly Cys Lys	Asn Glu Lys Ile Ala
420	425	430
Phe Ile Met Asp Glu Ser	Asn Val Leu Asp Ser	Gly Phe Leu Glu Arg
435	440	445
Met Asn Thr Leu Leu Ala	Asn Gly Glu Val Pro	Gly Leu Phe Glu Gly
450	455	460
Asp Glu Tyr Ala Thr Leu	Met Thr Gln Cys Lys	Glu Gly Ala Gln Lys
465	470	475
Glu Gly Leu Met Leu Asp	Ser His Glu Glu Leu	Tyr Lys Trp Phe Thr
485	490	495
Ser Gln Val Ile Arg Asn	Leu His Val Val Phe	Thr Met Asn Pro Ser
500	505	510
Ser Glu Gly Leu Lys Asp	Arg Ala Ala Thr Ser	Pro Ala Leu Phe Asn
515	520	525
Arg Cys Val Leu Asn Trp	Phe Gly Asp Trp Ser	Thr Glu Ala Leu Tyr
530	535	540
Gln Val Gly Lys Glu Phe	Thr Ser Lys Met Asp	Leu Glu Lys Pro Asn
545	550	555
Tyr Ile Val Pro Asp Tyr	Met Pro Val Val Tyr	Asp Lys Leu Pro Gln
565	570	575
Pro Pro Ser His Arg Glu	Ala Ile Val Asn Ser	Cys Val Phe Val His
580	585	590
Gln Thr Leu His Gln Ala	Asn Ala Arg Leu Ala	Lys Arg Gly Gly Arg
595	600	605
Thr Met Ala Ile Thr Pro	Arg His Tyr Leu Asp	Phe Ile Asn His Tyr
610	615	620
Ala Asn Leu Phe His Glu	Lys Arg Ser Glu Leu	Glu Glu Gln Gln Met
625	630	635
His Leu Asn Val Gly Leu	Arg Lys Ile Lys Glu	Thr Val Asp Gln Val
645	650	655
Glu Glu Leu Arg Arg Asp	Leu Arg Ile Lys Ser	Gln Glu Leu Glu Val
660	665	670
Lys Asn Ala Ala Ala Asn	Asp Lys Leu Lys Lys	Met Val Lys Asp Gln
675	680	685
Gln Glu Ala Glu Lys Lys	Lys Val Met Ser Gln	Glu Ile Gln Glu Gln
690	695	700
Leu His Lys Gln Gln Glu	Val Ile Ala Asp Lys	Gln Met Ser Val Lys
705	710	715
Glu Asp Leu Asp Lys Val	Glu Pro Ala Val Ile	Glu Ala Gln Asn Ala

				725				730				735			
Val	Lys	Ser	Ile	Lys	Lys	Gln	His	Leu	Val	Glu	Val	Arg	Ser	Met	Ala
			740					745					750		
Asn	Pro	Pro	Ala	Ala	Val	Lys	Leu	Ala	Leu	Glu	Ser	Ile	Cys	Leu	Leu
		755					760					765			
Leu	Gly	Glu	Ser	Thr	Thr	Asp	Trp	Lys	Gln	Ile	Arg	Ser	Ile	Ile	Met
	770					775					780				
Arg	Glu	Asn	Phe	Ile	Pro	Thr	Ile	Val	Asn	Phe	Ser	Ala	Glu	Glu	Ile
785					790				795						800
Ser	Asp	Ala	Ile	Arg	Glu	Lys	Met	Lys	Lys	Asn	Tyr	Met	Ser	Asn	Pro
			805						810					815	
Ser	Tyr	Asn	Tyr	Glu	Ile	Val	Asn	Arg	Ala	Ser	Leu	Ala	Cys	Gly	Pro
		820						825					830		
Met	Val	Lys	Trp	Ala	Ile	Ala	Gln	Leu	Asn	Tyr	Ala	Asp	Met	Leu	Lys
	835						840					845			
Arg	Val	Glu	Pro	Leu	Arg	Asn	Glu	Leu	Gln	Lys	Leu	Glu	Asp	Asp	Ala
	850					855					860				
Lys	Asp	Asn	Gln	Gln	Lys	Ala	Asn	Glu	Val	Glu	Gln	Met	Ile	Arg	Asp
865					870					875					880
Leu	Glu	Ala	Ser	Ile	Ala	Arg	Tyr	Lys	Glu	Glu	Tyr	Ala	Val	Leu	Ile
			885						890					895	
Ser	Glu	Ala	Gln	Ala	Ile	Lys	Ala	Asp	Leu	Ala	Ala	Val	Glu	Ala	Lys
		900						905					910		
Val	Asn	Arg	Ser	Thr	Ala	Leu	Leu	Lys	Ser	Leu	Ser	Ala	Glu	Arg	Glu
	915						920					925			
Arg	Trp	Glu	Lys	Thr	Ser	Glu	Thr	Phe	Lys	Asn	Gln	Met	Ser	Thr	Ile
	930					935					940				
Ala	Gly	Asp	Cys	Leu	Leu	Ser	Ala	Ala	Phe	Ile	Ala	Tyr	Ala	Gly	Tyr
945					950					955					960
Phe	Asp	Gln	Gln	Met	Arg	Gln	Asn	Leu	Phe	Thr	Thr	Trp	Ser	His	His
			965						970					975	
Leu	Gln	Gln	Ala	Asn	Ile	Gln	Phe	Arg	Thr	Asp	Ile	Ala	Arg	Thr	Glu
		980					985						990		
Tyr	Leu	Ser	Asn	Ala	Asp	Glu	Arg	Leu	Arg	Trp	Gln	Ala	Ser	Ser	Leu
	995					1000					1005				
Pro	Ala	Asp	Asp	Leu	Cys	Thr	Glu	Asn	Ala	Ile	Met	Leu	Lys	Arg	Phe
	1010					1015					1020				
Asn	Arg	Tyr	Pro	Leu	Ile	Ile	Asp	Pro	Ser	Gly	Gln	Ala	Thr	Glu	Phe
1025					1030					1035					1040
Ile	Met	Asn	Glu	Tyr	Lys	Asp	Arg	Lys	Ile	Thr	Arg	Thr	Ser	Phe	Leu
			1045						1050				1055		
Asp	Asp	Ala	Phe	Arg	Lys	Asn	Leu	Glu	Ser	Ala	Leu	Arg	Phe	Gly	Asn
		1060						1065				1070			
Pro	Leu	Leu	Val	Gln	Asp	Val	Glu	Ser	Tyr	Asp	Pro	Val	Leu	Asn	Pro
	1075					1080					1085				
Val	Leu	Asn	Arg	Glu	Val	Arg	Arg	Thr	Gly	Gly	Arg	Val	Leu	Ile	Thr
	1090					1095					1100				
Leu	Gly	Asp	Gln	Asp	Ile	Asp	Leu	Ser	Pro	Ser	Phe	Val	Ile	Phe	Leu
1105					1110					1115					1120
Ser	Thr	Arg	Asp	Pro	Thr	Val	Glu	Phe	Pro	Pro	Asp	Leu	Cys	Ser	Arg
			1125						1130				1135		
Val	Thr	Phe	Val	Asn	Phe	Thr	Val	Thr	Arg	Ser	Ser	Leu	Gln	Ser	Gln
		1140						1145				1150			
Cys	Leu	Asn	Glu	Val	Leu	Lys	Ala	Glu	Arg	Pro	Asp	Val	Asp	Glu	Lys
	1155					1160					1165				
Arg	Ser	Asp	Leu	Leu	Lys	Leu	Gln	Gly	Glu	Phe	Gln	Leu	Arg	Leu	Arg
	1170					1175				1180					
Gln	Leu	Glu	Lys	Ser	Leu	Leu	Gln	Ala	Leu	Asn	Glu	Val	Lys	Gly	Arg
1185					1190					1195					1200
Ile	Leu	Asp	Asp	Asp	Thr	Ile	Ile	Thr	Thr	Leu	Glu	Asn	Leu	Lys	Arg
			1205						1210						1215
Glu	Ala	Ala	Glu	Val	Thr	Arg	Lys	Val	Glu	Glu	Thr	Asp	Ile	Val	Met
			1220					1225				1230			
Gln	Glu	Val	Glu	Thr	Val	Ser	Gln	Gln	Tyr	Leu	Pro	Leu	Ser	Thr	Ala

1235 1240 1245
Cys Ser Ser Ile Tyr Phe Thr Met Glu Ser Leu Lys Gln Ile His Phe
1250 1255 1260
Leu Tyr Gln Tyr Ser Leu Gln Phe Phe Leu Asp Ile Tyr His Asn Val
1265 1270 1275 1280
Leu Tyr Glu Asn Pro Asn Leu Lys Gly Val Thr Asp His Thr Gln Arg
1285 1290 1295
Leu Ser Ile Ile Thr Lys Asp Leu Phe Gln Val Ala Phe Asn Arg Val
1300 1305 1310
Ala Arg Gly Met Leu His Gln Asp His Ile Thr Phe Ala Met Leu Leu
1315 1320 1325
Ala Arg Ile Lys Leu Lys Gly Thr Val Gly Glu Pro Thr Tyr Asp Ala
1330 1335 1340
Glu Phe Gln His Phe Leu Arg Gly Asn Glu Ile Val Leu Ser Ala Gly
1345 1350 1355 1360
Ser Thr Pro Arg Ile Gln Gly Leu Thr Val Glu Gln Ala Glu Ala Val
1365 1370 1375
Val Arg Leu Ser Cys Leu Pro Ala Phe Lys Asp Leu Ile Ala Lys Val
1380 1385 1390
Gln Ala Asp Glu Gln Phe Gly Ile Trp Leu Asp Ser Ser Ser Pro Glu
1395 1400 1405
Gln Thr Val Pro Tyr Leu Trp Ser Glu Glu Thr Pro Ala Thr Pro Ile
1410 1415 1420
Gly Gln Ala Ile His Arg Leu Leu Leu Ile Gln Ala Phe Arg Pro Asp
1425 1430 1435 1440
Arg Leu Leu Ala Met Ala His Met Phe Val Ser Thr Asn Leu Gly Glu
1445 1450 1455
Ser Phe Met Ser Ile Met Glu Gln Pro Leu Asp Leu Thr Gln Ile Val
1460 1465 1470
Gly Thr Glu Val Lys Pro Asn Thr Pro Val Leu Met Cys Ser Val Pro
1475 1480 1485
Gly Tyr Asp Ala Ser Gly His Val Glu Asp Leu Ala Ala Glu Gln Asn
1490 1495 1500
Thr Gln Ile Thr Ser Ile Ala Ile Gly Ser Ala Glu Gly Phe Asn Gln
1505 1510 1515 1520
Ala Asp Lys Ala Ile Asn Thr Ala Val Lys Ser Gly Arg Trp Val Met
1525 1530 1535
Leu Lys Asn Val His Leu Ala Pro Gly Trp Leu Met Gln Leu Glu Lys
1540 1545 1550
Lys Leu His Ser Leu Gln Pro His Ala Cys Phe Arg Leu Phe Leu Thr
1555 1560 1565
Met Glu Ile Asn Pro Lys Val Pro Val Asn Leu Leu Arg Ala Gly Arg
1570 1575 1580
Ile Phe Val Phe Glu Pro Pro Pro Gly Val Lys Ala Asn Met Leu Arg
1585 1590 1595 1600
Thr Phe Ser Ser Ile Pro Val Ser Arg Ile Cys Lys Ser Pro Asn Glu
1605 1610 1615
Arg Ala Arg Leu Tyr Phe Leu Leu Ala Trp Phe His Ala Ile Ile Gln
1620 1625 1630
Glu Arg Leu Arg Tyr Ala Pro Leu Gly Trp Ser Lys Lys Tyr Glu Phe
1635 1640 1645
Gly Glu Ser Asp Leu Arg Ser Ala Cys Asp Thr Val Asp Thr Trp Leu
1650 1655 1660
Asp Asp Thr Ala Lys Gly Arg Gln Asn Ile Ser Pro Asp Lys Ile Pro
1665 1670 1675 1680
Trp Ser Ala Leu Lys Thr Leu Met Ala Gln Ser Ile Tyr Gly Gly Arg
1685 1690 1695
Val Asp Asn Glu Phe Asp Gln Arg Leu Leu Asn Thr Phe Leu Glu Arg
1700 1705 1710
Leu Phe Thr Thr Arg Ser Phe Asp Ser Glu Phe Lys Leu Ala Cys Lys
1715 1720 1725
Val Asp Gly His Lys Asp Ile Gln Met Pro Asp Gly Ile Arg Arg Glu
1730 1735 1740
Glu Phe Val Gln Trp Val Glu Leu Leu Pro Asp Thr Gln Thr Pro Ser

1745	1750	1755	1760
Trp Leu Gly Leu Pro Asn Asn Ala Glu Arg Val Leu Leu Thr Thr Gln			
	1765	1770	1775
Gly Val Asp Met Ile Ser Lys Met Leu Lys Met Gln Met Leu Glu Asp			
	1780	1785	1790
Glu Asp Asp Leu Ala Tyr Ala Glu Thr Glu Lys Lys Thr Arg Thr Asp			
	1795	1800	1805
Ser Thr Ser Asp Gly Arg Pro Ala Trp Met Arg Thr Leu His Thr Thr			
	1810	1815	1820
Ala Ser Asn Trp Leu His Leu Ile Pro Gln Thr Leu Ser His Leu Lys			
1825	1830	1835	1840
Arg Thr Val Glu Asn Ile Lys Asp Pro Leu Phe Arg Phe Phe Glu Arg			
	1845	1850	1855
Glu Val Lys Met Gly Ala Lys Leu Leu Gln Asp Val Arg Gln Asp Leu			
	1860	1865	1870
Ala Asp Val Val Gln Val Cys Glu Gly Lys Lys Lys Gln Thr Asn Tyr			
	1875	1880	1885
Leu Arg Thr Leu Ile Asn Glu Leu Val Lys Gly Ile Leu Pro Arg Ser			
	1890	1895	1900
Trp Ser His Tyr Thr Val Pro Ala Gly Met Thr Val Ile Gln Trp Gly			
1905	1910	1915	1920
Val Pro Ile Ser Ala Arg Arg Ile Lys Gln Leu Gln Asn Ile Ser Leu			
	1925	1930	1935
Ala Ala Ala Ser Gly Gly Ala Lys Glu Leu Lys Asn Ile His Val Cys			
	1940	1945	1950
Leu Gly Gly Leu Phe Val Pro Glu Ala Tyr Ile Thr Ala Thr Arg Gln			
	1955	1960	1965
Tyr Val Ala Gln Ala Asn Ser Trp Ser Leu Glu Glu Leu Cys Leu Glu			
	1970	1975	1980
Val Asn Val Thr Thr Ser Gln Gly Ala Thr Leu Asp Ala Cys Ser Phe			
1985	1990	1995	2000
Gly Val Thr Gly Leu Lys Leu Gln Gly Ala Thr Cys Asn Asn Asn Lys			
	2005	2010	2015
Leu Ser Leu Ser Asn Ala Ile Ser Thr Ala Leu Pro Leu Thr Gln Leu			
	2020	2025	2030
Arg Trp Val Lys Gln Thr Asn Thr Glu Lys Lys Ala Ser Val Val Thr			
	2035	2040	2045
Leu Pro Val Tyr Leu Asn Phe Thr Arg Ala Asp Leu Ile Phe Thr Val			
	2050	2055	2060
Asp Phe Glu Ile Ala Thr Lys Glu Asp Pro Arg Ser Phe Tyr Glu Arg			
2065	2070	2075	2080
Gly Val Ala Val Leu Cys Thr Glu			
	2085	2088	

<210> 3771

<211> 685

<212> PRT

<213> Homo sapiens

<400> 3771

Leu Pro Leu Leu His Ala Gly Phe Asn Arg Arg Phe Met Glu Asn Ser			
1	5	10	15
Ser Ile Ile Ala Cys Tyr Asn Glu Leu Ile Gln Ile Glu His Gly Glu			
	20	25	30
Val Arg Ser Gln Phe Lys Leu Arg Ala Cys Asn Ser Val Phe Thr Ala			
	35	40	45
Leu Asp His Cys His Glu Ala Ile Glu Ile Thr Ser Asp Asp His Val			
	50	55	60
Ile Gln Tyr Val Asn Pro Ala Phe Glu Arg Met Met Gly Tyr His Lys			
	65	70	75
Gly Glu Leu Leu Gly Lys Glu Leu Ala Asp Leu Pro Lys Ser Asp Lys			

5531

	595		600		605										
Ile	Ser	Phe	Ile	Asp	Tyr	Phe	Ile	Thr	Asp	Met	Phe	Asp	Ala	Trp	Asp
	610		615		620										
Ala	Phe	Ala	His	Leu	Pro	Ala	Leu	Met	Gln	His	Leu	Ala	Asp	Asn	Tyr
	625		630		635										640
Lys	His	Trp	Lys	Thr	Leu	Asp	Asp	Leu	Lys	Cys	Lys	Ser	Leu	Arg	Leu
			645		650										655
Pro	Ser	Asp	Arg	Leu	Lys	Pro	Ser	His	Arg	Gly	Gly	Leu	Leu	Thr	Asp
		660					665							670	
Lys	Gly	His	Cys	Glu	Ser	Gln									
	675					679									

<210> 3772
 <211> 323
 <212> PRT
 <213> Homo sapiens

<400> 3772

Thr	Leu	Val	His	Ala	Asp	Gly	Phe	Pro	Ser	Leu	His	Ile	Thr	Glu	Thr
1				5					10					15	
Cys	Leu	Ala	Tyr	Arg	Glu	Lys	Arg	Ile	Gly	Ile	Asp	Leu	Val	His	Asp
			20					25					30		
Thr	Val	Glu	His	Glu	Leu	Ile	Lys	Glu	Ala	Glu	Ile	Ile	Gln	Gly	Ile
		35				40						45			
Met	Ala	Leu	Leu	Thr	Arg	Thr	Leu	Glu	Glu	Ala	Ser	Glu	Gln	Ile	Arg
	50					55					60				
Met	Asn	Arg	Ser	Ala	Lys	Tyr	Asn	Leu	Glu	Lys	Asp	Leu	Lys	Asp	Lys
	65				70					75					80
Phe	Val	Ala	Leu	Thr	Ile	Asp	Asp	Ile	Cys	Phe	Ser	Leu	Asn	Asn	Asn
			85						90					95	
Ser	Pro	Asn	Ile	Arg	Tyr	Ser	Glu	Asn	Ala	Val	Arg	Ile	Glu	Pro	Asn
		100						105					110		
Ser	Val	Ser	Leu	Glu	Asp	Trp	Leu	Asp	Phe	Ser	Ser	Thr	Asn	Val	Glu
	115						120					125			
Lys	Ala	Asp	Lys	Gln	Arg	Asn	Asn	Ser	Leu	Met	Leu	Lys	Ala	Leu	Val
	130					135					140				
Asp	Arg	Ile	Leu	Ser	Gln	Thr	Ala	Asn	Tyr	Leu	Arg	Lys	Gln	Cys	Asp
	145				150				155						160
Val	Val	His	Thr	Ala	Phe	Lys	Asn	Gly	Leu	Lys	Asp	Thr	Lys	Asp	Ala
			165					170						175	
Arg	Asp	Gln	Leu	Ala	Asp	His	Leu	Ala	Lys	Val	Met	Glu	Glu	Ile	Ala
		180						185					190		
Ser	Gln	Glu	Lys	Asn	Ile	Thr	Ala	Leu	Glu	Lys	Ala	Ile	Leu	Asp	Gln
	195						200					205			
Glu	Gly	Pro	Ala	Lys	Val	Ala	His	Thr	Arg	Leu	Glu	Thr	Arg	Thr	His
	210					215					220				
Arg	Pro	Asn	Val	Glu	Leu	Cys	Arg	Asp	Val	Ala	Gln	Tyr	Arg	Leu	Met
	225				230					235					240
Lys	Glu	Val	Gln	Glu	Ile	Thr	His	Asn	Val	Ala	Arg	Leu	Lys	Glu	Thr
			245					250						255	
Leu	Ala	Gln	Ala	Gln	Ala	Glu	Leu	Lys	Gly	Leu	His	Arg	Arg	Gln	Leu
		260						265						270	
Ala	Leu	Gln	Glu	Glu	Ile	Gln	Val	Lys	Glu	Asn	Thr	Ile	Tyr	Ile	Asp
	275						280					285			
Glu	Val	Leu	Cys	Met	Gln	Met	Arg	Lys	Ser	Ile	Pro	Leu	Arg	Asp	Gly
	290					295					300				
Glu	Asp	His	Gly	Val	Trp	Ala	Gly	Gly	Leu	Arg	Pro	Asp	Ala	Val	Cys
	305				310				315						320

<210> 3773
 <211> 320
 <212> PRT
 <213> Homo sapiens

<400> 3773
 Ala Ala Ala Arg Glu Ser Glu Arg Gln Leu Arg Leu Arg Leu Cys Val
 1 5 10 15
 Leu Asn Glu Ile Leu Gly Thr Glu Arg Asp Tyr Val Gly Thr Leu Arg
 20 25 30
 Phe Leu Gln Ser Ala Phe Leu His Arg Ile Arg Gln Asn Val Ala Asp
 35 40 45
 Ser Val Glu Lys Gly Leu Thr Glu Glu Asn Val Lys Val Leu Phe Ser
 50 55 60
 Asn Ile Glu Asp Ile Leu Glu Val His Lys Asp Phe Leu Ala Ala Leu
 65 70 75 80
 Glu Tyr Cys Leu His Pro Glu Pro Gln Ser Gln His Glu Leu Gly Asn
 85 90 95
 Val Phe Leu Lys Phe Lys Asp Lys Phe Cys Val Tyr Glu Glu Tyr Cys
 100 105 110
 Ser Asn His Glu Lys Ala Leu Arg Leu Leu Val Glu Leu Asn Lys Ile
 115 120 125
 Pro Thr Val Arg Ala Phe Leu Leu Ser Cys Met Leu Leu Gly Gly Arg
 130 135 140
 Lys Thr Thr Asp Ile Pro Leu Glu Gly Tyr Leu Leu Ser Pro Ile Gln
 145 150 155 160
 Arg Ile Cys Lys Tyr Pro Leu Leu Leu Lys Glu Leu Ala Lys Arg Thr
 165 170 175
 Pro Gly Lys His Pro Asp His Pro Ala Val Gln Ser Ala Leu Gln Ala
 180 185 190
 Met Lys Thr Val Cys Ser Asn Ile Asn Glu Thr Lys Arg Gln Met Glu
 195 200 205
 Lys Leu Glu Ala Leu Glu Ala Ala Ala Gln Ser His Ile Glu Gly Trp
 210 215 220
 Glu Gly Ser Asn Leu Thr Asp Ile Cys Thr Gln Leu Leu Leu Gln Gly
 225 230 235 240
 Thr Leu Leu Lys Ile Ser Ala Gly Asn Ile Gln Glu Arg Ala Phe Phe
 245 250 255
 Leu Phe Asp Asn Leu Leu Val Tyr Cys Lys Arg Lys Ser Arg Val Thr
 260 265 270
 Gly Ser Lys Lys Ser Thr Lys Arg Thr Lys Ser Ile Asn Gly Ser Leu
 275 280 285
 Tyr Ile Phe Arg Gly Arg Ile Asn Thr Glu Val Met Glu Val Glu Asn
 290 295 300
 Val Glu Asp Gly Thr Gly Ser Pro Ser Pro Ser Leu Ala
 305 310 315 317

<210> 3774
 <211> 733
 <212> PRT
 <213> Homo sapiens

<400> 3774
 Glu Leu Gln Gly Asp Phe Ser Val Pro Asp Val Pro Lys Ser Met Ala
 1 5 10 15
 Trp Cys Glu Asn Ser Ile Cys Val Gly Phe Lys Arg Asp Tyr Tyr Leu
 20 25 30
 Ile Arg Val Asp Gly Lys Gly Ser Ile Lys Glu Leu Phe Pro Thr Gly

lu Gly
al Ala

545		550		555		560
Thr Arg Met Ala Glu Glu Tyr Cys His Lys His Tyr Asp Arg Asn Lys						
	565		570		575	
Asp Gly Asn Lys Asp Val Tyr Leu Ser Leu Leu Arg Met Tyr Leu Ser						
	580		585		590	
Pro Pro Ser Ile His Cys Leu Gly Pro Ile Lys Leu Glu Leu Leu Glu						
	595		600		605	
Pro Lys Ala Asn Leu Gln Ala Ala Leu Gln Val Leu Glu Leu His His						
	610		615		620	
Ser Lys Leu Asp Thr Thr Lys Ala Leu Asn Leu Leu Pro Ala Asn Thr						
625		630		635		640
Gln Ile Asn Asp Ile Arg Ile Phe Leu Glu Lys Val Leu Glu Glu Asn						
	645		650		655	
Ala Gln Lys Lys Arg Phe Asn Gln Val Leu Lys Asn Leu Leu His Ala						
	660		665		670	
Glu Phe Leu Arg Val Gln Glu Glu Arg Ile Leu His Gln Gln Val Lys						
	675		680		685	
Cys Ile Ile Thr Glu Glu Lys Val Cys Met Val Cys Lys Lys Lys Ile						
	690		695		700	
Gly Asn Ser Ala Phe Ala Arg Tyr Pro Asn Gly Val Val Val His Tyr						
705		710		715		720
Phe Cys Ser Lys Glu Val Asn Pro Ala Asp Thr						
	725		730	731		

<210> 3775
 <211> 332
 <212> PRT
 <213> Homo sapiens

<400> 3775

Met Ser Arg Ala Arg Gly Ala Leu Cys Arg Ala Cys Leu Ala Leu Ala																
1			5					10					15			
Ala Ala Leu Ala Ala Leu Leu Leu Leu Pro Leu Pro Leu Pro Arg Ala																
		20					25					30				
Pro Ala Pro Ala Arg Thr Pro Ala Pro Ala Pro Arg Ala Pro Pro Ser																
	35					40						45				
Arg Pro Ala Ala Pro Ser Leu Arg Pro Asp Asp Val Phe Ile Ala Val																
	50					55						60				
Lys Thr Thr Arg Lys Asn His Gly Pro Arg Leu Arg Leu Leu Leu Arg																
	65				70						75					80
Thr Trp Ile Ser Arg Ala Arg Gln Gln Thr Phe Ile Phe Thr Asp Gly																
			85					90								95
Asp Asp Pro Glu Leu Glu Leu Gln Gly Gly Asp Arg Val Ile Asn Thr																
		100					105						110			
Asn Cys Ser Ala Val Arg Thr Arg Gln Ala Leu Cys Cys Lys Met Ser																
	115					120							125			
Val Glu Tyr Asp Lys Phe Ile Glu Ser Gly Arg Lys Trp Phe Cys His																
	130				135							140				
Val Asp Asp Asp Asn Tyr Val Asn Ala Arg Ser Leu Leu His Leu Leu																
	145				150						155					160
Ser Ser Phe Ser Pro Ser Gln Asp Val Tyr Leu Gly Arg Pro Ser Leu																
		165									170					175
Asp His Pro Ile Glu Ala Thr Glu Arg Val Gln Gly Gly Arg Thr Val																
		180														190
Thr Thr Val Lys Phe Trp Phe Ala Thr Gly Gly Ala Gly Phe Cys Leu																
	195					200							205			
Ser Arg Gly Leu Ala Leu Lys Met Ser Pro Trp Ala Ser Leu Gly Ser																
	210				215								220			
Phe Met Ser Thr Ala Glu Gln Val Arg Leu Pro Asp Asp Cys Thr Val																
	225				230						235					240
Gly Tyr Ile Val Glu Gly Leu Leu Gly Ala Arg Leu Leu His Ser Pro																

				245					250					255			
Leu	Phe	His	Ser	His	Leu	Glu	Asn	Leu	Gln	Arg	Leu	Pro	Pro	Asp	Thr		
			260					265					270				
Leu	Leu	Gln	Gln	Val	Thr	Leu	Ser	His	Gly	Gly	Pro	Glu	Asn	Pro	Gln		
		275					280					285					
Asn	Val	Val	Asn	Val	Ala	Gly	Gly	Phe	Ser	Leu	His	Gln	Asp	Pro	Thr		
	290					295				300							
Arg	Phe	Lys	Ser	Ile	His	Cys	Leu	Leu	Tyr	Pro	Asp	Thr	Asp	Trp	Cys		
305				310						315					320		
Pro	Arg	Gln	Lys	Gln	Gly	Ala	Pro	Thr	Ser	Arg							
			325					330	331								

<210> 3776
 <211> 265
 <212> PRT
 <213> Homo sapiens

<400> 3776

Pro	Arg	Ala	Lys	Leu	Gly	Thr	Arg	Ala	Arg	Asn	Met	Ala	Gly	Gln	Asp		
1				5				10					15				
Ala	Gly	Cys	Gly	Arg	Gly	Gly	Asp	Asp	Tyr	Ser	Glu	Asp	Glu	Gly	Asp		
		20					25					30					
Ser	Ser	Val	Ser	Arg	Ala	Ala	Val	Glu	Val	Phe	Gly	Lys	Leu	Lys	Asp		
	35					40				45							
Leu	Asn	Cys	Pro	Phe	Leu	Glu	Gly	Leu	Tyr	Ile	Thr	Glu	Pro	Lys	Thr		
	50					55				60							
Ile	Gln	Glu	Leu	Leu	Cys	Ser	Pro	Ser	Glu	Tyr	Arg	Leu	Glu	Ile	Leu		
65				70					75					80			
Glu	Trp	Met	Cys	Thr	Arg	Val	Trp	Pro	Ser	Leu	Gln	Asp	Arg	Phe	Ser		
		85					90						95				
Ser	Leu	Lys	Gly	Val	Pro	Thr	Glu	Val	Lys	Ile	Gln	Glu	Met	Thr	Lys		
	100						105					110					
Leu	Gly	His	Glu	Leu	Met	Leu	Cys	Ala	Pro	Asp	Asp	Gln	Glu	Leu	Leu		
	115					120						125					
Lys	Gly	Cys	Ala	Cys	Ala	Gln	Lys	Gln	Leu	His	Phe	Met	Asp	Gln	Leu		
	130					135					140						
Leu	Asp	Thr	Ile	Arg	Ser	Leu	Thr	Ile	Gly	Cys	Ser	Ser	Cys	Ser	Ser		
145				150				155						160			
Leu	Met	Glu	His	Phe	Glu	Asp	Thr	Arg	Glu	Lys	Asn	Glu	Ala	Leu	Leu		
		165					170							175			
Gly	Glu	Leu	Phe	Ser	Ser	Pro	His	Leu	Gln	Met	Leu	Leu	Asn	Pro	Glu		
	180						185						190				
Cys	Asp	Pro	Trp	Pro	Leu	Asp	Met	Gln	Pro	Leu	Leu	Asn	Lys	Gln	Ser		
	195					200						205					
Asp	Asp	Trp	Gln	Trp	Ala	Ser	Ala	Ser	Ala	Lys	Ser	Glu	Glu	Glu	Glu		
	210					215						220					
Lys	Leu	Ala	Glu	Leu	Ala	Arg	Gln	Leu	Gln	Glu	Ser	Ala	Ala	Lys	Leu		
225				230						235				240			
His	Ala	Leu	Arg	Thr	Glu	Tyr	Phe	Ala	Gln	His	Glu	Gln	Gly	Ala	Ala		
			245					250						255			
Ala	Gly	Ala	Ala	Thr	Ser	Ala	Pro										
		260				264											

<210> 3777
 <211> 138
 <212> PRT
 <213> Homo sapiens

<400> 3777

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Ser Glu Glu Asp Val Ile Glu Gly Lys Thr Ala Val Ile Glu Lys Arg
 1           5           10           15
Arg Lys Lys Arg Ser Ser Ala Gly Val Val Glu Asp Ile Gly Gly Glu
           20           25           30
Val Gln Asn Met Leu Glu Gly Val Gly Val Asp Ile Asn Lys Ala Leu
           35           40           45
Leu Ala Lys Arg Lys Arg Leu Glu Met Tyr Thr Lys Ala Ser Leu Arg
           50           55           60
Thr Ser Asn Gln Lys Ile Glu His Val Trp Lys Thr Gln Gln Asp Gln
           65           70           75           80
Arg Gln Lys Leu Asn Gln Glu Tyr Ser Gln Gln Phe Leu Thr Leu Phe
           85           90           95
Gln Gln Trp Asp Leu Asp Met Gln Lys Ala Glu Glu Gln Glu Glu Lys
           100          105          110
Ile Leu Val Gly Ile Met Ile Arg Phe Ile Ile Asn Gln Val Ser Ser
           115          120          125
Arg Asn Gly Gln Pro Ser Leu Leu Leu
           130          135          137

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<210> 3778

<211> 219

<212> PRT

<213> Homo sapiens

<400> 3778

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Ser Arg Leu Pro Pro Pro Pro Pro His Leu Ala Asp Gly Arg Ala Gly
 1           5           10           15
Ala Arg Val Pro Arg Ser Ala Arg Leu Ser Arg Trp Trp Val Gln Asp
           20           25           30
Trp Thr His Gly Pro Ile Val Arg Pro Pro Ala Ala Ala Arg Thr Met
           35           40           45
Trp Val Asn Pro Glu Glu Val Leu Leu Ala Asn Ala Leu Trp Ile Thr
           50           55           60
Glu Arg Ala Asn Pro Tyr Phe Ile Leu Gln Arg Arg Lys Gly His Ala
           65           70           75           80
Gly Asp Gly Gly Gly Gly Gly Gly Gly Leu Ala Gly Leu Leu Val Gly Thr
           85           90           95
Leu Asp Val Val Leu Asp Ser Ser Ala Arg Val Ala Pro Tyr Arg Ile
           100          105          110
Leu Tyr Gln Thr Pro Asp Ser Leu Val Tyr Trp Thr Ile Ala Cys Gly
           115          120          125
Gly Ser Arg Lys Glu Ile Thr Glu His Trp Glu Trp Leu Glu Gln Asn
           130          135          140
Leu Leu Gln Thr Leu Ser Ile Phe Glu Asn Glu Asn Asp Ile Thr Thr
           145          150          155          160
Phe Val Arg Gly Lys Ile Gln Gly Ile Ile Ala Glu Tyr Asn Lys Ile
           165          170          175
Asn Asp Val Lys Glu Asp Asp Asp Thr Glu Lys Phe Lys Glu Ala Ile
           180          185          190
Val Lys Phe His Arg Leu Phe Gly Met Pro Glu Glu Glu Lys Leu Val
           195          200          205
Asn Tyr Tyr Ser Cys Ser Tyr Trp Lys Gly
           210          215          218

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<210> 3779

<211> 312

<212> PRT

<213> Homo sapiens

<400> 3779

Cys Lys Ser Cys Thr Leu Phe Pro Gln Asn Pro Asn Leu Pro Pro Pro
 1 5 10 15
 Ser Thr Arg Glu Arg Pro Pro Gly Cys Lys Thr Val Phe Val Gly Gly
 20 25 30
 Leu Pro Glu Asn Ala Thr Glu Glu Ile Ile Gln Glu Val Phe Glu Gln
 35 40 45
 Cys Gly Asp Ile Thr Ala Ile Arg Lys Ser Lys Lys Asn Phe Cys His
 50 55 60
 Ile Arg Phe Ala Glu Glu Phe Met Val Asp Lys Ala Ile Tyr Leu Ser
 65 70 75 80
 Gly Tyr Arg Met Arg Leu Gly Ser Ser Thr Asp Lys Lys Asp Ser Gly
 85 90 95
 Arg Leu His Val Asp Phe Ala Gln Ala Arg Asp Asp Phe Tyr Glu Trp
 100 105 110
 Glu Cys Lys Gln Arg Met Arg Ala Arg Glu Glu Arg His Arg Arg Lys
 115 120 125
 Leu Glu Glu Asp Arg Leu Arg Pro Pro Ser Pro Pro Ala Ile Met His
 130 135 140
 Tyr Ser Glu His Glu Ala Ala Leu Leu Ala Glu Lys Leu Lys Asp Asp
 145 150 155 160
 Ser Lys Phe Ser Glu Ala Met Gln Val Leu Leu Ser Trp Ile Glu Arg
 165 170 175
 Gly Glu Val Asn Arg Arg Ser Ala Asn Gln Phe Tyr Ser Met Val Gln
 180 185 190
 Ser Ala Asn Ser His Val Arg Arg Leu Met Asn Glu Lys Ala Thr His
 195 200 205
 Glu Gln Glu Met Glu Glu Ala Lys Glu Asn Phe Lys Asn Ala Leu Thr
 210 215 220
 Gly Ile Leu Thr Gln Phe Glu Gln Ile Val Ala Val Phe Asn Ala Ser
 225 230 235 240
 Thr Arg Gln Lys Ala Trp Asp His Phe Ser Lys Ala Gln Arg Lys Asn
 245 250 255
 Ile Asp Ile Trp Ala Lys His Ser Glu Glu Leu Arg Asn Ala Gln Ser
 260 265 270
 Glu Gln Leu Met Gly Ile Arg Arg Glu Glu Glu Met Glu Met Ser Asp
 275 280 285
 Asp Glu Asn Cys Asp Ser Pro Thr Lys Lys Met Arg Val Asp Glu Ser
 290 295 300
 Ala Leu Gly Ala Pro
 305 309

<210> 3780

<211> 845

<212> PRT

<213> Homo sapiens

<400> 3780

Ala Ala Gln Ala Glu Arg Glu Glu Leu Ala Ala Gly Arg Met Pro Gly
 1 5 10 15
 Gly Gly Pro Gln Gly Ala Pro Ala Ala Gly Gly Gly Gly Val Ser
 20 25 30
 His Arg Ala Gly Ser Arg Asp Cys Leu Pro Pro Ala Ala Cys Phe Arg
 35 40 45
 Arg Arg Arg Leu Ala Arg Arg Pro Gly Tyr Met Arg Ser Ser Thr Gly
 50 55 60
 Pro Gly Ile Gly Phe Leu Ser Pro Ala Val Gly Thr Leu Phe Arg Phe
 65 70 75 80
 Pro Gly Gly Val Ser Gly Glu Glu Ser His His Ser Glu Ser Arg Ala

				85				90				95			
Arg	Gln	Cys	Gly	Leu	Asp	Ser	Arg	Gly	Leu	Leu	Val	Arg	Ser	Pro	Val
100				105				110							
Ser	Lys	Ser	Ala	Ala	Ala	Pro	Thr	Val	Thr	Ser	Val	Arg	Gly	Thr	Ser
115				120				125							
Ala	His	Phe	Gly	Ile	Gln	Leu	Arg	Gly	Gly	Thr	Arg	Leu	Pro	Asp	Arg
130				135				140							
Leu	Ser	Trp	Pro	Cys	Gly	Pro	Gly	Ser	Ala	Gly	Trp	Gln	Gln	Glu	Phe
145				150				155				160			
Ala	Ala	Met	Asp	Ser	Ser	Glu	Thr	Leu	Asp	Ala	Ser	Trp	Glu	Ala	Ala
165				170				175							
Cys	Ser	Asp	Gly	Ala	Arg	Arg	Val	Arg	Ala	Ala	Gly	Ser	Leu	Pro	Ser
180				185				190							
Ala	Glu	Leu	Ser	Ser	Asn	Ser	Cys	Ser	Pro	Gly	Cys	Gly	Pro	Glu	Val
195				200				205							
Pro	Pro	Thr	Pro	Pro	Gly	Ser	His	Ser	Ala	Phe	Thr	Ser	Ser	Phe	Ser
210				215				220							
Phe	Ile	Arg	Leu	Ser	Leu	Gly	Ser	Ala	Gly	Glu	Arg	Gly	Glu	Ala	Glu
225				230				235				240			
Gly	Cys	Pro	Pro	Ser	Arg	Glu	Ala	Glu	Ser	His	Cys	Gln	Ser	Pro	Gln
245				250				255							
Glu	Met	Gly	Ala	Lys	Ala	Ala	Ser	Leu	Asp	Gly	Pro	His	Glu	Asp	Pro
260				265				270							
Arg	Cys	Leu	Ser	Gln	Pro	Phe	Ser	Leu	Leu	Ala	Thr	Arg	Val	Ser	Ala
275				280				285							
Asp	Leu	Ala	Gln	Ala	Ala	Arg	Asn	Ser	Ser	Arg	Pro	Glu	Arg	Asp	Met
290				295				300							
His	Ser	Leu	Pro	Asp	Met	Asp	Pro	Gly	Ser	Ser	Ser	Ser	Leu	Asp	Pro
305				310				315				320			
Ser	Leu	Ala	Gly	Cys	Gly	Gly	Asp	Gly	Ser	Ser	Gly	Ser	Gly	Asp	Ala
325				330				335							
His	Ser	Trp	Asp	Thr	Leu	Leu	Arg	Lys	Trp	Glu	Pro	Val	Leu	Arg	Asp
340				345				350							
Cys	Leu	Leu	Arg	Asn	Arg	Arg	Gln	Met	Glu	Val	Ile	Ser	Leu	Arg	Leu
355				360				365							
Lys	Leu	Gln	Lys	Leu	Gln	Glu	Asp	Ala	Val	Glu	Asn	Asp	Asp	Tyr	Asp
370				375				380							
Lys	Ala	Glu	Thr	Leu	Gln	Gln	Arg	Leu	Glu	Asp	Leu	Glu	Gln	Glu	Lys
385				390				395				400			
Ile	Ser	Leu	His	Phe	Gln	Leu	Pro	Ser	Arg	Gln	Pro	Ala	Leu	Ser	Ser
405				410				415							
Phe	Leu	Gly	His	Leu	Ala	Ala	Gln	Val	Gln	Ala	Ala	Leu	Arg	Arg	Gly
420				425				430							
Ala	Thr	Gln	Gln	Ala	Ser	Gly	Asp	Asp	Thr	His	Thr	Pro	Leu	Arg	Met
435				440				445							
Glu	Pro	Arg	Leu	Leu	Glu	Pro	Thr	Ala	Gln	Asp	Ser	Leu	His	Val	Ser
450				455				460							
Ile	Thr	Arg	Arg	Asp	Trp	Leu	Leu	Gln	Glu	Lys	Gln	Gln	Leu	Gln	Lys
465				470				475				480			
Glu	Ile	Glu	Ala	Leu	Gln	Ala	Arg	Met	Phe	Val	Leu	Glu	Ala	Lys	Asp
485				490				495							
Gln	Gln	Leu	Arg	Arg	Glu	Ile	Glu	Glu	Gln	Glu	Gln	Gln	Leu	Gln	Trp
500				505				510							
Gln	Gly	Cys	Asp	Leu	Thr	Pro	Leu	Val	Gly	Gln	Leu	Ser	Leu	Gly	Gln
515				520				525							
Leu	Gln	Glu	Val	Ser	Lys	Ala	Leu	Gln	Asp	Thr	Leu	Ala	Ser	Ala	Gly
530				535				540							
Gln	Ile	Pro	Phe	His	Ala	Glu	Pro	Pro	Glu	Thr	Ile	Arg	Ser	Leu	Gln
545				550				555				560			
Glu	Arg	Ile	Lys	Ser	Leu	Asn	Leu	Ser	Leu	Lys	Glu	Ile	Thr	Thr	Lys
565				570				575							
Val	Cys	Met	Ser	Glu	Lys	Phe	Cys	Ser	Thr	Leu	Arg	Lys	Lys	Val	Asn
580				585				590							
Asp	Ile	Glu	Thr	Gln	Leu	Pro	Ala	Leu	Leu	Glu	Ala	Lys	Met	His	Ala

		595					600					605				
Ile	Ser	Gly	Asn	His	Phe	Trp	Thr	Ala	Lys	Asp	Leu	Thr	Glu	Glu	Ile	
	610						615				620					
Arg	Ser	Leu	Thr	Ser	Asp	Arg	Glu	Gly	Leu	Glu	Gly	Leu	Leu	Ser	Lys	
625					630					635					640	
Leu	Leu	Val	Leu	Ser	Ser	Arg	Asn	Val	Lys	Lys	Leu	Gly	Ser	Val	Lys	
				645					650						655	
Glu	Asp	Tyr	Asn	Arg	Leu	Arg	Arg	Glu	Val	Glu	His	Gln	Glu	Thr	Ala	
			660					665					670			
Tyr	Glu	Thr	Ser	Val	Lys	Glu	Asn	Thr	Met	Lys	Tyr	Met	Glu	Thr	Leu	
		675					680					685				
Lys	Asn	Lys	Leu	Cys	Ser	Cys	Lys	Cys	Pro	Leu	Leu	Gly	Lys	Val	Trp	
	690					695					700					
Glu	Ala	Asp	Leu	Glu	Ala	Cys	Arg	Leu	Leu	Ile	Gln	Cys	Leu	Gln	Leu	
705					710					715					720	
Gln	Glu	Ala	Arg	Gly	Ser	Leu	Ser	Val	Glu	Asp	Glu	Arg	Gln	Met	Asp	
				725					730					735		
Asp	Leu	Glu	Gly	Ala	Ala	Pro	Pro	Ile	Pro	Pro	Arg	Leu	His	Ser	Glu	
			740					745					750			
Asp	Lys	Arg	Lys	Thr	Pro	Leu	Lys	Glu	Ser	Tyr	Ile	Leu	Ser	Ala	Glu	
		755					760					765				
Leu	Gly	Glu	Lys	Cys	Glu	Asp	Ile	Gly	Lys	Lys	Leu	Leu	Tyr	Leu	Glu	
	770					775					780					
Asp	Gln	Leu	His	Thr	Ala	Ile	His	Ser	His	Asp	Glu	Asp	Leu	Ile	Gln	
785					790					795					800	
Ser	Leu	Arg	Arg	Glu	Leu	Gln	Met	Val	Lys	Glu	Thr	Leu	Gln	Ala	Met	
				805					810					815		
Ile	Leu	Gln	Leu	Gln	Pro	Ala	Lys	Glu	Ala	Gly	Glu	Arg	Glu	Ala	Ala	
			820				825						830			
Ala	Ser	Cys	Met	Thr	Ala	Gly	Val	His	Glu	Ala	Gln	Ala				
		835					840					845				

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<210> 3781
<211> 332
<212> PRT
<213> Homo sapiens
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<400> 3781																
Gly	Arg	Arg	Arg	Ala	Gly	Pro	Ala	His	Ser	Ala	Arg	Met	Tyr	Asn	Met	
1				5					10					15		
Met	Glu	Thr	Glu	Leu	Lys	Pro	Pro	Gly	Pro	Gln	Gln	Thr	Ser	Gly	Gly	
			20					25					30			
Gly	Gly	Gly	Asn	Ser	Thr	Ala	Ala	Ala	Ala	Gly	Gly	Asn	Gln	Lys	Asn	
		35					40					45				
Ser	Pro	Asp	Arg	Val	Lys	Arg	Pro	Met	Asn	Ala	Phe	Met	Val	Trp	Ser	
	50					55					60					
Arg	Gly	Gln	Arg	Arg	Lys	Met	Ala	Gln	Glu	Asn	Pro	Lys	Met	His	Asn	
65					70					75					80	
Ser	Glu	Ile	Ser	Lys	Arg	Leu	Gly	Ala	Glu	Trp	Lys	Leu	Leu	Ser	Glu	
				85					90					95		
Thr	Glu	Lys	Arg	Pro	Phe	Ile	Asp	Glu	Ala	Lys	Arg	Leu	Arg	Ala	Leu	
			100					105					110			
His	Met	Lys	Glu	His	Pro	Asp	Tyr	Lys	Tyr	Arg	Pro	Arg	Arg	Lys	Thr	
		115					120					125				
Lys	Thr	Leu	Met	Lys	Lys	Asp	Lys	Tyr	Thr	Leu	Pro	Gly	Gly	Leu	Leu	
	130					135					140					
Ala	Pro	Gly	Gly	Asn	Ser	Met	Ala	Ser	Gly	Val	Gly	Val	Gly	Ala	Gly	
145					150					155					160	
Leu	Gly	Ala	Gly	Val	Asn	Gln	Arg	Met	Asp	Ser	Tyr	Ala	His	Met	Asn	
				165					170				175			
Gly	Trp	Ser	Asn	Gly	Ser	Tyr	Ser	Met	Met	Gln	Asp	Gln	Leu	Gly	Tyr	

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<210> 3782
<211> 883
<212> PRT
<213> Homo sapiens
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5541

275	280	285
Glu Pro Ala Val Gly Leu	Glu Ser Ala Pro Ala Pro	Ala Leu Glu Leu
290	295	300
Glu Pro Ala Pro Glu Gln Asp	Pro Ala Pro Ser Gln Thr	Leu Glu Leu
305	310	315
Glu Pro Ala Pro Ala Pro Val	Pro Ser Leu Gln Pro Ser	Trp Pro Ser
325	330	335
Pro Val Val Ala Glu Asn Gly	Leu Ser Glu Glu Lys Pro	His Leu Leu
340	345	350
Val Phe Pro Pro Asp Leu Val	Ala Glu Gln Phe Thr Leu	Met Asp Ala
355	360	365
Glu Leu Phe Lys Lys Val Val	Pro Tyr His Cys Leu Gly	Ser Ile Trp
370	375	380
Ser Gln Arg Asp Lys Lys Gly	Lys Glu His Leu Ala Pro	Thr Ile Arg
385	390	395
Ala Thr Val Thr Gln Phe Asn	Ser Val Ala Asn Cys Val	Ile Thr Thr
405	410	415
Cys Leu Gly Asn Arg Ser Thr	Lys Ala Pro Asp Arg Ala	Arg Val Val
420	425	430
Glu His Trp Ile Glu Val Ala	Arg Glu Cys Arg Ile Leu	Lys Asn Phe
435	440	445
Ser Ser Leu Tyr Ala Ile Leu	Ser Ala Leu Gln Ser Asn	Ser Ile His
450	455	460
Arg Leu Lys Lys Thr Trp Glu	Asp Val Ser Arg Asp Ser	Phe Arg Ile
465	470	475
Phe Gln Lys Leu Ser Glu Ile	Phe Ser Asp Glu Asn Asn	Tyr Ser Leu
485	490	495
Ser Arg Glu Leu Leu Ile Lys	Glu Gly Thr Ser Lys Phe	Ala Thr Leu
500	505	510
Glu Met Asn Pro Lys Arg Ala	Gln Lys Arg Pro Lys Glu	Thr Gly Ile
515	520	525
Ile Gln Gly Thr Val Pro Tyr	Leu Gly Thr Phe Leu Thr	Asp Leu Val
530	535	540
Met Leu Asp Thr Ala Met Lys	Asp Tyr Leu Tyr Gly Arg	Leu Ile Asn
545	550	555
Phe Glu Lys Arg Arg Lys Glu	Phe Glu Val Ile Ala Gln	Ile Lys Leu
565	570	575
Leu Gln Ser Ala Cys Asn Asn	Tyr Ser Ile Ala Pro Asp	Glu Gln Phe
580	585	590
Gly Ala Trp Phe Arg Ala Val	Glu Arg Leu Ser Glu Thr	Glu Ser Tyr
595	600	605
Asn Leu Ser Cys Glu Leu Glu	Pro Pro Ser Glu Ser Ala	Ser Asn Thr
610	615	620
Leu Arg Thr Lys Lys Asn Thr	Ala Ile Val Lys Arg Trp	Ser Asp Arg
625	630	635
Gln Ala Pro Ser Thr Glu Leu	Ser Thr Ser Gly Ser Ser	His Ser Lys
645	650	655
Ser Cys Asp Gln Leu Arg Cys	Gly Pro Tyr Leu Ser Ser	Gly Asp Ile
660	665	670
Ala Asp Ala Leu Ser Val His	Ser Ala Gly Ser Ser Ser	Ser Asp Val
675	680	685
Glu Glu Ile Asn Ile Ser Phe	Val Pro Glu Ser Pro Asp	Gly Gln Glu
690	695	700
Lys Lys Phe Trp Glu Ser Ala	Ser Gln Ser Ser Pro Glu	Thr Ser Gly
705	710	715
Ile Ser Ser Ala Ser Ser Ser	Thr Ser Ser Ser Ser Ala	Ser Thr Thr
725	730	735
Pro Val Ala Ala Thr Arg Thr	His Lys Arg Ser Val Ser	Gly Leu Cys
740	745	750
Asn Ser Ser Ser Ala Leu Pro	Leu Tyr Asn Gln Gln Val	Gly Asp Cys
755	760	765
Cys Ile Ile Arg Val Ser Leu	Asp Val Asp Asn Gly Asn	Met Tyr Lys
770	775	780
Ser Ile Leu Val Thr Ser Gln	Asp Lys Ala Pro Ala Val	Ile Arg Lys

785		790		795		800
Ala Met Asp Lys	His Asn Leu Glu Glu Glu Glu Pro Glu Asp Tyr Glu					
	805		810			815
Leu Leu Gln Ile	Leu Ser Asp Asp Arg Lys Leu Lys Ile Pro Glu Asn					
	820		825			830
Ala Asn Val Phe	Tyr Ala Met Asn Ser Thr Ala Asn Tyr Asp Phe Val					
	835		840			845
Leu Lys Lys Arg	Thr Phe Thr Lys Gly Val Lys Val Lys His Gly Ala					
	850		855			860
Ser Ser Thr Leu	Pro Arg Met Lys Gln Lys Gly Leu Lys Ile Ala Lys					
	865		870			875
Gly Ile Phe						880
	883					

<210> 3783

<211> 288

<212> PRT

<213> Homo sapiens

<400> 3783

Arg Ser Gly Gln	Gly Lys Val Tyr Gly Leu Ile Gly Arg Arg Arg Phe
1	5 10 15
Gln Gln Met Asp	Val Leu Glu Gly Leu Asn Leu Leu Ile Thr Ile Ser
	20 25 30
Gly Lys Arg Asn	Lys Leu Arg Val Tyr Tyr Leu Ser Trp Leu Arg Asn
	35 40 45
Lys Ile Leu His	Asn Asp Pro Glu Val Glu Lys Lys Gln Gly Trp Thr
	50 55 60
Thr Val Gly Asp	Met Glu Gly Cys Gly His Tyr Arg Val Val Lys Tyr
	65 70 75 80
Glu Arg Ile Lys	Phe Leu Val Ile Ala Leu Lys Ser Ser Val Glu Val
	85 90 95
Tyr Ala Trp Ala	Pro Lys Pro Tyr His Lys Phe Met Ala Phe Lys Ser
	100 105 110
Phe Ala Asp Leu	Pro His Arg Pro Leu Leu Val Asp Leu Thr Val Glu
	115 120 125
Glu Gly Gln Arg	Leu Lys Val Ile Tyr Gly Ser Ser Ala Gly Phe His
	130 135 140
Ala Val Asp Val	Asp Ser Gly Asn Ser Tyr Asp Ile Tyr Ile Pro Val
	145 150 155 160
His Ile Gln Ser	Gln Ile Thr Pro His Ala Ile Ile Phe Leu Pro Asn
	165 170 175
Thr Asp Gly Met	Glu Met Leu Leu Cys Tyr Glu Asp Glu Gly Val Tyr
	180 185 190
Val Asn Thr Tyr	Gly Arg Ile Ile Lys Asp Val Val Leu Gln Trp Gly
	195 200 205
Glu Met Pro Thr	Ser Val Ala Tyr Ile Cys Ser Asn Gln Ile Met Gly
	210 215 220
Trp Gly Glu Lys	Ala Ile Glu Ile Arg Ser Val Glu Thr Gly His Leu
	225 230 235 240
Asp Gly Val Phe	Met His Lys Arg Ala Gln Arg Leu Lys Phe Leu Cys
	245 250 255
Glu Arg Asn Asp	Lys Val Phe Phe Ala Ser Val Arg Ser Gly Gly Ser
	260 265 270
Ser Gln Val Tyr	Phe Met Thr Leu Asn Arg Asn Cys Ile Met Asn Trp
	275 280 285 288

<210> 3784
 <211> 251
 <212> PRT
 <213> Homo sapiens

<400> 3784
 Leu Ser Pro Arg Gln Val Asp Gly Leu Ala Gly Leu Gln Lys Gly Leu
 1 5 10 15
 Ser Leu Ser Leu Leu Tyr Gln Phe Leu Met Asn Gly Ile Arg Leu Gly
 20 25 30
 Thr Tyr Gly Leu Ala Glu Ala Gly Gly Tyr Leu His Thr Ala Glu Gly
 35 40 45
 Thr His Ser Pro Ala Arg Ser Ala Ala Ala Gly Ala Met Ala Gly Val
 50 55 60
 Met Gly Ala Tyr Leu Gly Ser Pro Ile Tyr Met Val Lys Thr His Leu
 65 70 75 80
 Gln Ala Gln Ala Ala Ser Glu Ile Ala Val Gly His Gln Tyr Lys His
 85 90 95
 Gln Gly Met Phe Gln Ala Leu Thr Glu Ile Gly Gln Lys His Gly Leu
 100 105 110
 Val Gly Leu Trp Arg Gly Ala Leu Gly Gly Leu Pro Arg Val Ile Val
 115 120 125
 Gly Ser Ser Thr Gln Leu Cys Thr Phe Ser Ser Thr Lys Asp Leu Leu
 130 135 140
 Ser Gln Trp Glu Ile Phe Pro Pro Gln Ser Trp Lys Leu Ala Leu Val
 145 150 155 160
 Ala Ala Met Met Ser Gly Ile Ala Val Val Leu Ala Met Ala Pro Phe
 165 170 175
 Asp Val Ala Cys Thr Arg Leu Tyr Asn Gln Pro His Arg Cys Thr Gly
 180 185 190
 Gln Gly Pro Leu Tyr Arg Gly Ile Leu Asp Ala Leu Leu Gln Thr Ala
 195 200 205
 Arg Thr Glu Gly Ile Phe Gly Met Tyr Lys Gly Ile Gly Ala Ser Tyr
 210 215 220
 Phe Arg Leu Gly Pro His Thr Ile Leu Ser Leu Phe Phe Trp Asp Gln
 225 230 235 240
 Leu Arg Ser Leu Tyr Thr Asp Thr Lys
 245 250

<210> 3785
 <211> 209
 <212> PRT
 <213> Homo sapiens

<400> 3785
 Arg Arg Arg Gly Arg His Ser Leu Cys Gly Gly Lys Met Leu Ala Tyr
 1 5 10 15
 Cys Val Gln Asp Ala Thr Val Val Asp Val Glu Lys Arg Arg Asn Pro
 20 25 30
 Ser Lys His Tyr Val Tyr Ile Ile Asn Val Thr Trp Ser Asp Ser Thr
 35 40 45
 Ser Gln Thr Ile Tyr Arg Arg Tyr Ser Lys Phe Phe Asp Leu Gln Met
 50 55 60
 Gln Leu Leu Asp Lys Phe Pro Ile Glu Ser Gly Gln Lys Asp Pro Lys
 65 70 75 80
 Gln Arg Ile Ile Pro Phe Leu Pro Gly Lys Ile Leu Phe Arg Arg Ser
 85 90 95
 His Ile Arg Asp Val Ala Val Lys Arg Leu Lys Pro Ile Asp Glu Tyr
 100 105 110
 Cys Arg Ala Leu Val Arg Leu Pro Pro His Ile Ser Gln Cys Asp Glu

115	120	125
Val Phe Arg Phe Phe Glu Ala Arg Pro Glu Asp Val Asn Pro Pro Lys		
130	135	140
Glu Gln Gly Pro Ser Pro Pro Asp Ala Val Leu Pro Tyr Gly Val Asn		
145	150	155
Lys Gly Lys Gln Glu Leu Lys Ala Gly Pro Asn Trp Pro Gly Arg Thr		
	165	170
His His Val Val Asn Cys Val Thr Gln Lys Cys Leu Phe Val Phe His		
	180	185
Phe Lys Phe Ser Ser Ser Gly Asn Lys Glu Ser Lys Ser Leu		
195	200	205 206

<210> 3786
 <211> 720
 <212> PRT
 <213> Homo sapiens

<400> 3786

Glu Phe Val Gly Arg Ala Ala Ser Thr Thr Val Val Thr Arg Ile Ala	
1	5 10 15
Trp Arg Met Ala Asp Ala Gly Ile Arg Arg Val Val Pro Ser Asp Leu	
	20 25 30
Tyr Pro Leu Val Leu Gly Phe Leu Arg Asp Asn Gln Leu Ser Glu Val	
	35 40 45
Ala Asn Lys Phe Ala Lys Ala Thr Gly Ala Thr Gln Gln Asp Ala Asn	
	50 55 60
Ala Ser Ser Leu Leu Asp Ile Tyr Ser Phe Trp Leu Asn Arg Ser Ala	
65	70 75 80
Lys Val Pro Glu Arg Lys Leu Gln Ala Asn Gly Pro Val Ala Lys Lys	
	85 90 95
Ala Lys Lys Lys Ala Ser Ser Ser Asp Ser Glu Asp Ser Ser Glu Glu	
	100 105 110
Glu Glu Glu Val Gln Gly Pro Pro Ala Lys Lys Ala Ala Val Pro Ala	
	115 120 125
Lys Arg Val Gly Leu Pro Pro Gly Lys Ala Ala Ala Lys Ala Ser Glu	
	130 135 140
Ser Ser Ser Ser Glu Glu Ser Ser Asp Asp Asp Asp Glu Glu Asp Gln	
145	150 155 160
Lys Lys Gln Pro Val Gln Lys Gly Val Lys Pro Gln Ala Lys Ala Gly	
	165 170 175
Gln Ala Pro Pro Lys Lys Ala Lys Ser Ser Asp Ser Asp Ser Asp Ser	
	180 185 190
Ser Ser Glu Asp Glu Pro Pro Lys Asn Gln Lys Pro Lys Ile Thr Pro	
	195 200 205
Val Thr Val Lys Ala Gln Thr Lys Ala Pro Pro Lys Pro Ala Arg Ala	
	210 215 220
Ala Pro Lys Ile Ala Asn Gly Lys Ala Ala Ser Ser Ser Ser Ser Ser	
225	230 235 240
Ser Ser Ser Ser Ser Ser Asp Asp Ser Glu Glu Glu Lys Ala Ala Ala	
	245 250 255
Thr Pro Lys Lys Thr Val Pro Lys Lys Gln Val Val Ala Lys Ala Pro	
	260 265 270
Val Lys Ala Ala Thr Thr Pro Thr Arg Lys Ser Ser Ser Ser Glu Asp	
	275 280 285
Ser Ser Ser Asp Glu Glu Glu Glu Gln Lys Lys Pro Met Lys Asn Lys	
290	295 300
Pro Gly Pro Tyr Ser Ser Val Pro Pro Pro Ser Ala Pro Pro Pro Lys	
305	310 315 320
Lys Ser Leu Gly Thr Gln Pro Pro Lys Lys Ala Val Glu Lys Gln Gln	
	325 330 335
Pro Val Glu Ser Ser Glu Asp Ser Ser Asp Glu Ser Asp Ser Ser Ser	

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<210> 3787
<211> 1697
<212> PRT
<213> Homo sapiens
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<400> 3787
Ile Pro Glu Gly Arg Ala Leu Ser Ala Glu His Thr Ser Ser Leu Val
  1                    5                10                15
Pro Ser Leu His Ile Thr Thr Leu Gly Gln Glu Gln Ala Ile Leu Ser
      20                25                30
Gly Ala Val Pro Ala Ser Pro Ser Thr Gly Thr Ala Asp Phe Pro Ser
      35                40                45
Ile Leu Thr Phe Leu Gln Pro Thr Glu Asn His Ala Ser Pro Ser Pro

```

50	55	60
Val Pro Glu Met Pro Thr	Leu Pro Ala Glu Gly Ser	Asp Gly Ser Pro
65	70	75
Pro Ala Thr Arg Asp Leu	Leu Leu Ser Ser Lys	Val Pro Asn Leu Leu
85	90	95
Ser Thr Ser Trp Thr Phe	Pro Arg Trp Lys Lys	Asp Ser Val Thr Ala
100	105	110
Ile Leu Gly Lys Asn Glu	Glu Ala Asn Val Thr	Ile Pro Leu Gln Ala
115	120	125
Phe Pro Arg Lys Glu Val	Leu Ser Leu His Thr	Val Asn Gly Phe Val
130	135	140
Ser Asp Phe Ser Thr Gly	Ser Val Ser Ser Pro	Ile Ile Thr Ala Pro
145	150	155
Arg Thr Asn Pro Leu Pro	Ser Gly Pro Pro Leu	Pro Ser Ile Leu Ser
165	170	175
Ile Gln Ala Thr Gln Thr	Val Phe Pro Ser Leu	Leu Ala Phe Ser Ser
180	185	190
Thr Lys Pro Glu Val Tyr	Ala Ala Val Asp His	Ser Gly Leu Pro
195	200	205
Ala Ser Ala Pro Lys Gln	Val Arg Ala Ser Pro	Ser Ser Met Asp Val
210	215	220
Tyr Asp Ser Leu Thr Ile	Gly Asp Met Lys Lys	Pro Ala Thr Thr Asp
225	230	235
Val Phe Trp Ser Ser Leu	Ser Ala Glu Thr Gly	Ser Leu Ser Thr Glu
245	250	255
Ser Ile Ile Ser Gly Leu	Gln Gln Gln Thr Asn	Tyr Asp Leu Asn Gly
260	265	270
His Thr Ile Ser Thr Thr	Ser Trp Glu Thr His	Leu Ala Pro Thr Ala
275	280	285
Pro Pro Asn Gly Leu Thr	Ser Ala Ala Asp Ala	Ile Lys Ser Gln Asp
290	295	300
Phe Lys Asp Thr Ala Gly	His Ser Val Thr Ala	Glu Gly Phe Ser Ile
305	310	315
Gln Asp Leu Val Leu Gly	Thr Ser Ile Glu Gln	Pro Val Gln Gln Ser
325	330	335
Asp Met Thr Met Val Gly	Ser His Ile Asp Leu	Trp Pro Thr Ser Asn
340	345	350
Asn Asn His Ser Arg Asp	Phe Gln Thr Ala Glu	Val Ala Tyr Tyr Ser
355	360	365
Pro Thr Thr Arg His Ser	Val Ser His Pro Gln	Leu Gln Leu Pro Asn
370	375	380
Gln Pro Ala His Pro Leu	Leu Leu Thr Ser Pro	Gly Pro Thr Ser Thr
385	390	395
Gly Ser Leu Gln Glu Met	Leu Ser Asp Gly Thr	Asp Thr Gly Ser Glu
405	410	415
Ile Ser Ser Asp Ile Asn	Ser Ser Pro Glu Arg	Asn Ala Ser Thr Pro
420	425	430
Phe Gln Asn Ile Leu Gly	Tyr His Ser Ala Ala	Glu Ser Ser Ile Ser
435	440	445
Thr Ser Val Phe Pro Arg	Thr Ser Ser Arg Val	Leu Arg Ala Ser Gln
450	455	460
His Pro Lys Lys Trp Thr	Ala Asp Thr Val Ser	Ser Lys Val Gln Pro
465	470	475
Thr Ala Ala Ala Val Thr	Leu Phe Leu Arg Lys	Ser Ser Pro Pro
485	490	495
Ala Leu Ser Ala Ala Leu	Val Ala Lys Gly Thr	Ser Ser Ser Pro Leu
500	505	510
Ala Val Ala Ser Gly Pro	Ala Lys Ser Ser Ser	Met Thr Thr Leu Ala
515	520	525
Lys Asn Val Thr Asn Lys	Ala Ala Ser Gly Pro	Lys Arg Thr Pro Gly
530	535	540
Ala Val His Thr Ala Phe	Pro Phe Thr Pro Thr	Tyr Met Tyr Ala Arg
545	550	555
Thr Gly His Thr Thr Ser	Thr His Thr Ala Ile	Ala Arg Lys His Gly

5548

1075	1080	1085
Glu Val Ile Pro Val Thr Gln Glu Thr Val Val Leu Pro Leu Pro Ile		
1090	1095	1100
Arg Asp Ala Pro Gln Glu Arg Asp Val Ala Gln Asp Gly Ser Thr Ile		
1105	1110	1115
Lys Thr Ala Lys Ser Thr Glu Thr Arg Lys Ser Arg Ser Pro Ser Glu		
	1125	1130
Asn Gly Ser Val Ile Ser Asn Glu Ser Gly Lys Pro Ser Ser Gly Arg		
	1140	1145
Arg Ser Pro Gln Asn Val Met Ala Gln Gln Lys Val Thr Lys Glu Glu		
	1155	1160
Ala Arg Lys Arg Asn Val Pro Ala Ser Asp Glu Glu Glu Gly Ala Val		
	1170	1175
Leu Phe Asp Asn Ser Ser Lys Val Ala Ala Glu Pro Phe Asp Thr Ser		
1185	1190	1195
Ser Gly Ser Val Gln Leu Ile Ala Ile Lys Pro Thr Ala Leu Pro Met		
	1205	1210
Val Pro Pro Thr Ser Asp Arg Ser Gln Glu Ser Ser Ala Val Leu Asn		
	1220	1225
Gly Glu Val Asn Lys Ala Leu Lys Gln Lys Ser Asp Ile Glu His Tyr		
	1235	1240
Arg Asn Lys Leu Arg Leu Lys Ala Lys Arg Lys Gly Tyr Tyr Asp Phe		
	1250	1255
Pro Ala Val Glu Thr Ser Lys Gly Leu Thr Glu Arg Lys Lys Met Tyr		
1265	1270	1275
Glu Lys Ala Pro Lys Glu Met Glu His Val Leu Asp Pro Asp Ser Glu		
	1285	1290
Leu Cys Ala Pro Phe Thr Glu Ser Lys Asn Arg Gln Gln Met Lys Asn		
	1300	1305
Ser Val Tyr Arg Ser Arg Gln Ser Leu Asn Ser Pro Ser Pro Gly Glu		
	1315	1320
Thr Glu Met Asp Leu Leu Val Thr Arg Glu Arg Pro Arg Arg Gly Ile		
	1330	1335
Arg Asn Ser Gly Tyr Asp Thr Glu Pro Glu Ile Ile Glu Glu Thr Asn		
1345	1350	1355
Ile Asp Arg Val Pro Glu Pro Arg Gly Tyr Ser Arg Ser Arg Gln Val		
	1365	1370
Lys Gly His Ser Glu Thr Ser Thr Leu Ser Ser Gln Pro Ser Ile Asp		
	1380	1385
Glu Val Arg Gln Gln Met His Met Leu Leu Glu Glu Ala Phe Ser Leu		
	1395	1400
Ala Ser Ala Gly His Ala Gly Gln Ser Arg His Gln Glu Ala Tyr Gly		
	1410	1415
Ser Ala Gln His Leu Pro Tyr Ser Glu Val Val Thr Ser Ala Pro Gly		
1425	1430	1435
Thr Met Thr Arg Pro Arg Ala Gly Val Gln Trp Val Pro Thr Tyr Arg		
	1445	1450
Pro Glu Met Tyr Gln Tyr Ser Leu Pro Arg Pro Ala Tyr Arg Phe Ser		
	1460	1465
Gln Leu Pro Glu Met Val Met Gly Ser Pro Pro Pro Pro Val Pro Pro		
	1475	1480
Arg Thr Gly Pro Val Ala Val Ala Ser Leu Arg Arg Ser Thr Ser Asp		
	1490	1495
Ile Gly Ser Lys Thr Arg Met Ala Glu Ser Thr Gly Pro Glu Pro Ala		
1505	1510	1515
Gln Leu His Asp Ser Ala Ser Phe Thr Gln Met Ser Arg Gly Pro Val		
	1525	1530
Ser Val Thr Gln Leu Asp Gln Ser Ala Leu Asn Tyr Ser Gly Asn Thr		
	1540	1545
Val Pro Ala Val Phe Ala Ile Pro Ala Ala Asn Arg Pro Gly Phe Thr		
	1555	1560
Gly Tyr Phe Ile Pro Thr Pro Pro Ser Ser Tyr Arg Asn Gln Ala Trp		
	1570	1575
Met Ser Tyr Ala Gly Glu Asn Glu Leu Pro Ser Gln Trp Ala Asp Ser		

1585		1590		1595		1600									
Val	Pro	Leu	Pro	Gly	Tyr	Ile	Glu	Ala	Tyr	Pro	Arg	Ser	Arg	Tyr	Pro
		1605		1610		1615									
Gln	Ser	Ser	Pro	Ser	Arg	Leu	Pro	Arg	Gln	Tyr	Ser	Gln	Pro	Ala	Asn
		1620		1625		1630									
Leu	His	Pro	Ser	Leu	Glu	Gln	Ala	Pro	Ala	Pro	Ser	Thr	Ala	Ala	Ser
		1635		1640		1645									
Gln	Gln	Ser	Leu	Ala	Glu	Asn	Asp	Pro	Ser	Asp	Ala	Pro	Leu	Thr	Asn
		1650		1655		1660									
Ile	Ser	Thr	Ala	Ala	Leu	Val	Lys	Ala	Ile	Arg	Glu	Glu	Val	Ala	Lys
1665		1670		1675		1680									
Leu	Ala	Lys	Lys	Gln	Thr	Asp	Met	Phe	Glu	Phe	Gln	Val			
		1685		1690		1693									

<210> 3788
 <211> 582
 <212> PRT
 <213> Homo sapiens

<400> 3788

Met	Lys	Gly	Leu	Tyr	Thr	Asp	Ala	Glu	Met	Lys	Ser	Asp	Asn	Val	Lys
1				5				10						15	
Asp	Lys	Asp	Ala	Lys	Ile	Ser	Phe	Leu	Gln	Lys	Ala	Ile	Asp	Val	Val
			20					25					30		
Val	Met	Val	Ser	Gly	Glu	Pro	Leu	Leu	Ala	Lys	Pro	Ala	Arg	Ile	Val
			35					40					45		
Ala	Gly	His	Glu	Pro	Glu	Arg	Thr	Asn	Glu	Leu	Leu	Gln	Ile	Ile	Gly
			50					55				60			
Lys	Cys	Cys	Leu	Asn	Lys	Leu	Ser	Ser	Asp	Asp	Ala	Val	Arg	Arg	Val
65				70				75						80	
Leu	Ala	Gly	Glu	Lys	Gly	Glu	Val	Lys	Gly	Arg	Ala	Ser	Leu	Thr	Ser
				85				90						95	
Arg	Ser	Gln	Glu	Leu	Asp	Asn	Lys	Asn	Val	Arg	Glu	Glu	Glu	Ser	Arg
			100					105						110	
Val	His	Lys	Asn	Thr	Glu	Asp	Arg	Gly	Asp	Ala	Glu	Ile	Lys	Glu	Arg
			115					120					125		
Ser	Thr	Ser	Arg	Asp	Arg	Lys	Gln	Lys	Glu	Glu	Leu	Lys	Glu	Asp	Arg
			130					135					140		
Met	Pro	Arg	Glu	Lys	Asp	Lys	Asp	Lys	Glu	Lys	Ala	Lys	Glu	Asn	Gly
145				150				155						160	
Gly	Asn	Arg	His	Arg	Glu	Gly	Glu	Arg	Glu	Arg	Ala	Lys	Ala	Arg	Ala
				165				170						175	
Arg	Pro	Asp	Asn	Glu	Arg	Gln	Lys	Asp	Arg	Gly	Asn	Arg	Glu	Arg	Asp
			180					185					190		
Arg	Asp	Ser	Glu	Arg	Lys	Lys	Glu	Thr	Glu	Arg	Lys	Ser	Glu	Gly	Gly
			195					200					205		
Lys	Glu	Lys	Glu	Arg	Leu	Arg	Asp	Arg	Asp	Arg	Glu	Arg	Asp	Arg	Asp
			210					215					220		
Lys	Gly	Lys	Asp	Arg	Asp	Arg	Arg	Arg	Val	Lys	Asn	Gly	Glu	His	Ser
225				230				235						240	
Trp	Asp	Leu	Asp	Arg	Glu	Asn	Asn	Arg	Glu	His	Asp	Lys	Pro	Glu	Lys
				245				250						255	
Lys	Ser	Ala	Ser	Ser	Gly	Glu	Met	Ser	Lys	Lys	Leu	Ser	Asp	Gly	Thr
			260					265						270	
Phe	Lys	Asp	Ser	Lys	Ala	Glu	Thr	Glu	Thr	Glu	Ile	Ser	Thr	Arg	Ala
			275					280						285	
Ser	Lys	Ser	Leu	Thr	Thr	Lys	Thr	Ser	Lys	Arg	Arg	Ser	Lys	Asn	Ser
			290					295						300	
Val	Glu	Gly	Asp	Ser	Thr	Ser	Asp	Ala	Glu	Gly	Asp	Ala	Gly	Pro	Ala
305				310				315						320	
Gly	Gln	Asp	Lys	Ser	Glu	Val	Pro	Glu	Thr	Pro	Glu	Ile	Pro	Asn	Glu

325 330 335
Leu Ser Ser Asn Ile Arg Arg Ile Pro Arg Pro Gly Ser Ala Arg Pro
340 345 350
Ala Pro Pro Arg Val Lys Arg Gln Asp Ser Met Glu Ala Leu Gln Met
355 360 365
Asp Arg Ser Gly Ser Gly Lys Thr Val Ser Asn Val Ile Thr Glu Ser
370 375 380
His Asn Ser Asp Asn Glu Asp Asp Gln Phe Val Val Glu Ala Ala
385 390 395 400
Pro Gln Leu Ser Glu Met Ser Glu Ile Glu Met Val Thr Ala Val Glu
405 410 415
Leu Glu Glu Glu Glu Lys His Gly Gly Leu Val Lys Lys Ile Leu Glu
420 425 430
Thr Lys Lys Asp Tyr Glu Lys Leu Gln Gln Ser Pro Lys Pro Gly Glu
435 440 445
Lys Glu Arg Ser Leu Phe Glu Ser Ala Trp Lys Lys Glu Lys Asp Ile
450 455 460
Val Ser Lys Glu Ile Glu Lys Leu Arg Thr Ser Ile Gln Thr Leu Cys
465 470 475 480
Lys Ser Ala Leu Pro Leu Gly Lys Ile Met Asp Tyr Ile Gln Glu Asp
485 490 495
Val Asp Ala Met Gln Asn Glu Leu Gln Met Tyr His Ser Glu Asn Arg
500 505 510
Gln His Ala Glu Ala Leu Gln Gln Glu Gln Arg Ile Thr Asp Cys Ala
515 520 525
Val Glu Pro Leu Lys Ala Glu Leu Ala Glu Leu Glu Gln Leu Ile Lys
530 535 540
Asp Gln Gln Asp Lys Ile Cys Ala Val Lys Ala Asn Ile Leu Lys Asn
545 550 555 560
Glu Glu Lys Ile Gln Lys Met Val Tyr Ser Ile Asn Leu Thr Ser Arg
565 570 575
Arg
577

<210> 3789
<211> 1458
<212> PRT
<213> Homo sapiens

<400> 3789
Met Arg Thr Leu Gly Thr Cys Leu Ala Thr Leu Ala Gly Leu Leu Leu
1 5 10 15
Thr Ala Ala Gly Glu Thr Phe Ser Gly Gly Cys Leu Phe Asp Glu Pro
20 25 30
Tyr Ser Thr Cys Gly Tyr Ser Gln Ser Glu Gly Asp Asp Phe Asn Trp
35 40 45
Glu Gln Val Asn Thr Leu Thr Lys Pro Thr Ser Asp Pro Trp Met Pro
50 55 60
Ser Gly Ser Phe Met Leu Val Asn Ala Ser Gly Arg Pro Glu Gly Gln
65 70 75 80
Arg Ala His Leu Leu Leu Pro Gln Leu Lys Glu Asn Asp Thr His Cys
85 90 95
Ile Asp Phe His Tyr Phe Val Ser Ser Lys Ser Asn Ser Pro Pro Gly
100 105 110
Leu Leu Asn Val Tyr Val Lys Val Asn Asn Gly Pro Leu Gly Asn Pro
115 120 125
Ile Trp Asn Ile Ser Gly Asp Pro Thr Arg Thr Trp Asn Arg Ala Glu
130 135 140
Leu Ala Ile Ser Thr Phe Trp Pro Asn Phe Tyr Gln Val Ile Phe Glu
145 150 155 160
Val Ile Thr Ser Gly His Gln Gly Tyr Leu Ala Ile Asp Glu Val Lys

5552

675	680	685
Asn Thr Pro Leu Leu Pro Tyr Lys Ser Tyr Arg Ile Tyr Phe Gln Ala		
690	695	700
Ala Ser Arg Ala Asn Gly Glu Thr Lys Ile Asp Cys Val Gln Val Ala		
705	710	715
Thr Lys Gly Ala Ala Thr Pro Lys Pro Val Pro Glu Pro Glu Lys Gln		
725	730	735
Thr Asp His Thr Val Lys Ile Ala Gly Val Ile Ala Gly Ile Leu Leu		
740	745	750
Phe Val Ile Ile Phe Leu Gly Val Val Leu Val Met Lys Lys Arg Lys		
755	760	765
Leu Ala Lys Lys Arg Lys Glu Thr Met Ser Ser Thr Arg Gln Glu Ile		
770	775	780
Asp Leu Trp Ile Gly Glu Leu Asn Gly Pro Arg Ser Tyr Ala Glu Gln		
785	790	795
Gly Thr Lys Leu Ala Thr Arg Ala Phe Ser Phe Met Asp Thr His Asn		
805	810	815
Leu Asn Gly Arg Ser Val Ser Ser Pro Ser Ser Phe Thr Met Lys Thr		
820	825	830
Asn Thr Leu Ser Thr Ser Val Pro Asn Ser Tyr Tyr Pro Asp Glu Thr		
835	840	845
His Thr Met Ala Ser Asp Thr Ser Ser Leu Val Gln Ser His Thr Tyr		
850	855	860
Lys Lys Arg Glu Pro Ala Asp Val Pro Tyr Gln Thr Gly Gln Leu His		
865	870	875
Pro Ala Ile Arg Val Ala Asp Leu Leu Gln His Ile Thr Gln Met Lys		
885	890	895
Cys Ala Glu Gly Tyr Gly Phe Lys Glu Glu Tyr Glu Ser Phe Phe Glu		
900	905	910
Gly Gln Ser Ala Pro Trp Asp Ser Ala Lys Lys Asp Glu Asn Arg Met		
915	920	925
Lys Asn Arg Tyr Gly Asn Ile Ile Ala Tyr Asp His Ser Arg Val Arg		
930	935	940
Leu Gln Thr Ile Glu Gly Asp Thr Asn Ser Asp Tyr Ile Asn Gly Asn		
945	950	955
Tyr Ile Asp Gly Tyr His Arg Pro Asn His Tyr Ile Ala Thr Gln Gly		
965	970	975
Pro Met Gln Glu Thr Ile Tyr Asp Phe Trp Arg Met Val Trp His Glu		
980	985	990
Asn Thr Ala Ser Ile Ile Met Val Thr Asn Leu Val Glu Val Gly Arg		
995	1000	1005
Val Lys Cys Cys Lys Tyr Trp Pro Asp Asp Thr Glu Ile Tyr Lys Asp		
1010	1015	1020
Ile Lys Val Thr Leu Ile Glu Thr Glu Leu Leu Ala Glu Tyr Val Ile		
1025	1030	1035
Arg Thr Phe Ala Val Glu Lys Arg Gly Val His Glu Ile Arg Glu Ile		
1045	1050	1055
Arg Gln Phe His Phe Thr Gly Trp Pro Asp His Gly Val Pro Tyr His		
1060	1065	1070
Ala Thr Gly Leu Leu Gly Phe Val Arg Gln Val Lys Ser Lys Ser Pro		
1075	1080	1085
Pro Ser Ala Gly Pro Leu Val Val His Cys Ser Ala Gly Ala Gly Arg		
1090	1095	1100
Thr Gly Cys Phe Ile Val Ile Asp Ile Met Leu Asp Met Ala Glu Arg		
1105	1110	1115
Glu Gly Val Val Asp Ile Tyr Asn Cys Val Arg Glu Leu Arg Ser Arg		
1125	1130	1135
Arg Val Asn Met Val Gln Thr Glu Glu Gln Tyr Val Phe Ile His Asp		
1140	1145	1150
Ala Ile Leu Glu Ala Cys Leu Cys Gly Asp Thr Ser Val Pro Ala Ser		
1155	1160	1165
Gln Val Arg Ser Leu Tyr Tyr Asp Met Asn Lys Leu Asp Pro Gln Thr		
1170	1175	1180
Asn Ser Ser Gln Ile Lys Glu Glu Phe Arg Thr Leu Asn Met Val Thr		

1185	1190	1195	1200
Pro Thr Leu Arg Val Glu Asp Cys Ser Ile Ala Leu Leu Pro Arg Asn			
	1205	1210	1215
His Glu Lys Asn Arg Cys Met Asp Ile Leu Pro Pro Asp Arg Cys Leu			
	1220	1225	1230
Pro Phe Leu Ile Thr Ile Asp Gly Glu Ser Ser Asn Tyr Ile Asn Ala			
	1235	1240	1245
Ala Leu Met Asp Ser Tyr Lys Gln Pro Ser Ala Phe Ile Val Thr Gln			
	1250	1255	1260
His Pro Leu Pro Asn Thr Val Lys Asp Phe Trp Arg Leu Val Leu Asp			
1265	1270	1275	1280
Tyr His Cys Thr Ser Val Val Met Leu Asn Asp Val Asp Pro Ala Gln			
	1285	1290	1295
Leu Cys Pro Gln Tyr Trp Pro Glu Asn Gly Val His Arg His Gly Pro			
	1300	1305	1310
Ile Gln Val Glu Phe Val Ser Ala Asp Leu Glu Glu Asp Ile Ile Ser			
	1315	1320	1325
Arg Ile Phe Arg Ile Tyr Asn Ala Ala Arg Pro Gln Asp Gly Tyr Arg			
	1330	1335	1340
Met Val Gln Gln Phe Gln Phe Leu Gly Trp Pro Met Tyr Arg Asp Thr			
1345	1350	1355	1360
Pro Val Ser Lys Arg Ser Phe Leu Lys Leu Ile Arg Gln Val Asp Lys			
	1365	1370	1375
Trp Gln Glu Glu Tyr Asn Gly Gly Glu Gly Arg Thr Val Val His Cys			
	1380	1385	1390
Leu Asn Gly Gly Gly Arg Ser Gly Thr Phe Cys Ala Ile Ser Ile Val			
	1395	1400	1405
Cys Glu Met Leu Arg His Gln Arg Thr Val Asp Val Phe His Ala Val			
	1410	1415	1420
Lys Thr Leu Arg Asn Asn Lys Pro Asn Met Val Asp Leu Leu Asp Gln			
1425	1430	1435	1440
Tyr Lys Phe Cys Tyr Glu Val Ala Leu Glu Tyr Leu Asn Ser Gly			
	1445	1450	1455

<210> 3790
 <211> 76
 <212> PRT
 <213> Homo sapiens

<400> 3790
 Glu Glu Gln Thr Pro Leu His Ile Ala Ser Arg Leu Gly Lys Thr Glu
 1 5 10 15
 Ile Val Gln Leu Leu Leu Gln His Met Ala His Pro Asp Ala Ala Thr
 20 25 30
 Thr Asn Gly Tyr Thr Pro Leu His Ile Ser Ala Arg Glu Gly Gln Val
 35 40 45
 Asp Val Ala Ser Val Leu Leu Gly Arg Gln Gly Ala Ala His Ser Phe
 50 55 60
 Arg Leu Thr Lys Val Arg Arg Met Thr Ser
 65 70 74

<210> 3791
 <211> 1960
 <212> PRT
 <213> Homo sapiens

<400> 3791
 Leu Pro Pro Val Thr Met Ser Gly Lys Tyr Ile Met Glu Glu His Asp

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Ser Tyr Ser Asp Gln Val Trp Ser Ile Asp Glu Leu Pro Ser Lys Gln			
20	25	30	
Gly Tyr Tyr Leu Gln Gly Asn Tyr Leu Arg Cys Val Ala Glu Val Gly			
35	40	45	
Ser Phe Glu His Asn Leu Thr Thr Asp Leu Leu Asn His Leu Val Phe			
50	55	60	
Val Gln Lys Val Phe Met Lys Glu Val Asn Glu Val Ile Gln Lys Val			
65	70	75	80
Ser Gly Gly Glu Gln Pro Ile Pro Leu Trp Asn Glu His Asp Gly Thr			
85	90	95	
Ala Asp Gly Asp Lys Pro Lys Ile Leu Leu Tyr Ser Leu Asn Leu Gln			
100	105	110	
Phe Lys Gly Ile Gln Val Thr Ala Thr Thr Pro Ser Met Arg Ala Val			
115	120	125	
Arg Phe Glu Thr Gly Leu Ile Glu Leu Glu Leu Ser Asn Arg Leu Gln			
130	135	140	
Thr Lys Ala Ser Pro Gly Ser Ser Ser Tyr Leu Lys Leu Phe Gly Lys			
145	150	155	160
Cys Gln Val Asp Leu Asn Leu Ala Leu Gly Gln Ile Val Lys His Gln			
165	170	175	
Val Tyr Glu Glu Ala Gly Ser Asp Phe His Gln Val Ala Tyr Phe Lys			
180	185	190	
Thr Arg Ile Gly Leu Arg Asn Ala Leu Arg Glu Glu Ile Ser Gly Ser			
195	200	205	
Ser Asp Arg Glu Ala Val Leu Ile Thr Leu Asn Arg Pro Ile Val Tyr			
210	215	220	
Ala Gln Pro Val Ala Phe Asp Arg Ala Val Leu Phe Trp Leu Asn Tyr			
225	230	235	240
Lys Ala Ala Tyr Asp Asn Trp Asn Glu Gln Arg Met Ala Leu His Lys			
245	250	255	
Asp Ile His Met Ala Thr Lys Glu Val Val Asp Met Leu Pro Gly Ile			
260	265	270	
Gln Gln Thr Ser Ala Gln Ala Phe Gly Thr Pro Phe Leu Gln Leu Thr			
275	280	285	
Val Asn Asp Leu Gly Ile Cys Leu Pro Ile Thr Asn Thr Ala Gln Ser			
290	295	300	
Asn His Thr Gly Asp Leu Asp Thr Gly Ser Ala Leu Val Leu Thr Ile			
305	310	315	320
Glu Ser Thr Leu Ile Thr Ala Cys Ser Ser Glu Ser Leu Val Ser Lys			
325	330	335	
Gly His Phe Lys Asn Phe Cys Ile Arg Phe Ala Asp Gly Phe Glu Thr			
340	345	350	
Ser Trp Asp Asp Trp Lys Pro Glu Ile His Gly Asp Leu Val Met Asn			
355	360	365	
Ala Cys Val Val Pro Asp Gly Thr Tyr Glu Val Cys Ser Arg Thr Thr			
370	375	380	
Gly Gln Ala Ala Ala Glu Ser Ser Ser Ala Gly Thr Trp Thr Leu Asn			
385	390	395	400
Val Leu Trp Lys Met Cys Gly Ile Asp Val His Met Asp Pro Asn Ile			
405	410	415	
Gly Lys Arg Leu Asn Ala Leu Gly Asn Thr Leu Thr Thr Leu Thr Gly			
420	425	430	
Glu Glu Asp Ile Asp Asp Ile Ala Asp Leu Asn Ser Val Asn Ile Ala			
435	440	445	
Asp Leu Ser Asp Glu Asp Glu Val Asp Thr Met Ser Pro Thr Ile His			
450	455	460	
Thr Glu Ala Thr Asp Tyr Arg Arg Gln Ala Ala Ser Ala Ser Gln Pro			
465	470	475	480
Gly Glu Leu Arg Gly Arg Lys Ile Met Lys Arg Ile Val Asp Ile Arg			
485	490	495	
Glu Leu Asn Glu Gln Ala Lys Val Ile Asp Asp Leu Lys Lys Leu Gly			
500	505	510	
Ala Ser Glu Gly Thr Ile Asn Gln Glu Ile Gln Arg Tyr Gln Gln Leu			

	515		520		525										
Glu	Ser	Val	Ala	Val	Asn	Asp	Ile	Arg	Arg	Asp	Val	Arg	Lys	Lys	Leu
530						535					540				
Arg	Arg	Ser	Ser	Met	Arg	Ala	Ala	Ser	Leu	Lys	Asp	Lys	Trp	Gly	Leu
545					550					555					560
Ser	Tyr	Lys	Pro	Ser	Tyr	Ser	Arg	Ser	Lys	Ser	Ile	Ser	Ala	Ser	Gly
				565					570						575
Arg	Pro	Pro	Leu	Lys	Arg	Met	Glu	Arg	Ala	Ser	Ser	Arg	Val	Gly	Glu
			580				585						590		
Thr	Glu	Glu	Leu	Pro	Glu	Ile	Arg	Val	Asp	Ala	Ala	Ser	Pro	Gly	Pro
			595				600						605		
Arg	Val	Thr	Phe	Asn	Ile	Gln	Asp	Thr	Phe	Pro	Glu	Glu	Thr	Glu	Leu
610						615					620				
Asp	Leu	Leu	Ser	Val	Thr	Ile	Glu	Gly	Pro	Ser	His	Tyr	Ser	Ser	Asn
625					630					635					640
Ser	Glu	Gly	Ser	Cys	Ser	Val	Phe	Ser	Ser	Pro	Lys	Thr	Pro	Gly	Gly
				645					650						655
Phe	Ser	Pro	Gly	Ile	Pro	Phe	Gln	Thr	Glu	Glu	Gly	Arg	Arg	Asp	Asp
			660					665					670		
Ser	Leu	Ser	Ser	Thr	Ser	Glu	Asp	Ser	Glu	Lys	Asp	Glu	Lys	Asp	Glu
			675				680					685			
Asp	His	Glu	Arg	Glu	Arg	Phe	Tyr	Ile	Tyr	Arg	Lys	Pro	Ser	His	Thr
690						695					700				
Ser	Arg	Lys	Lys	Ala	Thr	Gly	Phe	Ala	Ala	Val	His	Gln	Leu	Phe	Thr
705					710						715				720
Glu	Arg	Trp	Pro	Thr	Thr	Pro	Val	Asn	Arg	Ser	Leu	Ser	Gly	Thr	Ala
				725					730					735	
Thr	Glu	Arg	Asn	Ile	Asp	Phe	Glu	Leu	Asp	Ile	Arg	Val	Glu	Ile	Asp
			740				745						750		
Ser	Gly	Lys	Cys	Val	Leu	His	Pro	Thr	Thr	Leu	Leu	Gln	Glu	His	Asp
			755				760					765			
Asp	Ile	Ser	Leu	Arg	Arg	Ser	Tyr	Asp	Arg	Ser	Ser	Arg	Ser	Leu	Asp
770						775					780				
Gln	Asp	Ser	Pro	Ser	Lys	Lys	Lys	Lys	Phe	Gln	Thr	Asn	Tyr	Ala	Ser
785					790					795					800
Thr	Thr	His	Leu	Met	Thr	Gly	Lys	Lys	Val	Pro	Ser	Ser	Leu	Gln	Thr
				805					810					815	
Lys	Pro	Ser	Asp	Leu	Glu	Thr	Thr	Val	Phe	Tyr	Ile	Pro	Gly	Val	Asp
			820					825					830		
Val	Lys	Leu	His	Tyr	Asn	Ser	Lys	Thr	Leu	Lys	Thr	Glu	Ser	Pro	Asn
			835				840					845			
Ala	Ser	Arg	Gly	Ser	Ser	Leu	Pro	Arg	Thr	Leu	Ser	Lys	Glu	Ser	Lys
			850			855				860					
Leu	Tyr	Gly	Met	Lys	Asp	Ser	Ala	Thr	Ser	Pro	Pro	Ser	Pro	Pro	Leu
865					870					875					880
Pro	Ser	Thr	Val	Gln	Ser	Lys	Thr	Asn	Thr	Leu	Leu	Pro	Pro	Gln	Pro
				885					890					895	
Pro	Pro	Ile	Pro	Ala	Ala	Lys	Gly	Lys	Gly	Ser	Gly	Gly	Val	Lys	Thr
			900				905						910		
Ala	Lys	Leu	Tyr	Ala	Trp	Val	Ala	Leu	Gln	Ser	Leu	Pro	Glu	Glu	Met
			915				920					925			
Val	Ile	Ser	Pro	Cys	Leu	Leu	Asp	Phe	Leu	Glu	Lys	Ala	Leu	Glu	Thr
			930			935				940					
Ile	Pro	Ile	Thr	Pro	Val	Glu	Arg	Asn	Tyr	Thr	Ala	Val	Ser	Ser	Gln
945					950					955					960
Asp	Glu	Asp	Met	Gly	His	Phe	Glu	Ile	Pro	Asp	Pro	Met	Glu	Glu	Ser
				965					970					975	
Thr	Thr	Ser	Leu	Val	Ser	Ser	Ser	Thr	Ser	Ala	Tyr	Ser	Ser	Phe	Pro
			980					985					990		
Val	Asp	Val	Val	Val	Tyr	Val	Arg	Val	Gln	Pro	Ser	Gln	Ile	Lys	Phe
			995			1000						1005			
Ser	Cys	Leu	Pro	Val	Ser	Arg	Val	Glu	Cys	Met	Leu	Lys	Leu	Pro	Ser
1010					1015					1020					
Leu	Asp	Leu	Val	Phe	Ser	Ser	Asn	Arg	Gly	Glu	Leu	Glu	Thr	Leu	Gly

1025 1030 1035 1040
Thr Thr Tyr Pro Ala Glu Thr Leu Ser Pro Gly Gly Asn Ala Thr Gln
1045 1050 1055
Ser Gly Thr Lys Thr Ser Ala Ser Lys Thr Gly Ile Pro Gly Ser Ser
1060 1065 1070
Gly Leu Gly Ser Pro Leu Gly Arg Ser Arg His Ser Ser Ser Gln Ser
1075 1080 1085
Asp Leu Thr Ser Ser Ser Ser Ser Ser Gly Leu Ser Phe Thr Ala
1090 1095 1100
Cys Met Ser Asp Phe Ser Leu Tyr Val Phe His Pro Tyr Gly Ala Gly
1105 1110 1115 1120
Lys Gln Ile Thr Ala Val Ser Gly Leu Thr Pro Gly Ser Gly Gly Leu
1125 1130 1135
Gly Asn Val Asp Glu Glu Pro Thr Ser Val Thr Gly Arg Lys Asp Ser
1140 1145 1150
Leu Ser Ile Asn Leu Glu Phe Val Lys Val Ser Leu Ser Arg Ile Arg
1155 1160 1165
Arg Ser Gly Gly Ala Ser Phe Phe Glu Ser Gln Ser Val Ser Lys Ser
1170 1175 1180
Ala Ser Lys Met Asp Thr Thr Leu Ile Asn Ile Ser Ala Val Cys Asp
1185 1190 1195 1200
Ile Gly Ser Ala Ser Phe Lys Tyr Asp Met Arg Arg Leu Ser Glu Ile
1205 1210 1215
Leu Ala Phe Pro Arg Ala Trp Tyr Arg Arg Ser Ile Ala Arg Arg Leu
1220 1225 1230
Phe Leu Gly Asp Gln Thr Ile Asn Leu Pro Thr Ser Gly Pro Gly Thr
1235 1240 1245
Pro Asp Ser Ile Glu Gly Val Ser Gln His Leu Ser Pro Glu Ser Ser
1250 1255 1260
Arg Lys Ala Tyr Cys Lys Thr Trp Glu Gln Pro Ser Gln Ser Ala Ser
1265 1270 1275 1280
Phe Thr His Met Pro Gln Ser Pro Asn Val Phe Asn Glu His Met Thr
1285 1290 1295
Asn Ser Thr Met Ser Pro Gly Thr Val Gly Gln Ser Leu Lys Ser Pro
1300 1305 1310
Ala Ser Ile Arg Ser Arg Ser Val Ser Asp Ser Ser Val Pro Arg Arg
1315 1320 1325
Asp Ser Leu Ser Lys Thr Ser Thr Pro Phe Asn Lys Ser Asn Lys Ala
1330 1335 1340
Ala Ser Gln Gln Gly Thr Pro Trp Glu Thr Leu Val Val Phe Ala Ile
1345 1350 1355 1360
Asn Leu Lys Gln Leu Asn Val Gln Met Asn Met Ser Asn Val Met Gly
1365 1370 1375
Asn Thr Thr Trp Thr Thr Ser Gly Leu Lys Ser Gln Gly Arg Leu Ser
1380 1385 1390
Val Gly Ser Asn Arg Asp Arg Glu Ile Ser Met Ser Val Gly Leu Gly
1395 1400 1405
Arg Ser Gln Leu Asp Ser Lys Gly Gly Val Val Gly Gly Thr Ile Asp
1410 1415 1420
Val Asn Ala Leu Glu Met Val Ala His Ile Ser Glu His Pro Asn Gln
1425 1430 1435 1440
Gln Pro Ser His Lys Ile Gln Ile Thr Met Gly Ser Thr Glu Ala Arg
1445 1450 1455
Val Asp Tyr Met Gly Ser Ser Ile Leu Met Gly Ile Phe Ser Asn Ala
1460 1465 1470
Asp Leu Lys Leu Gln Asp Glu Trp Lys Val Asn Leu Tyr Asn Thr Leu
1475 1480 1485
Asp Ser Ser Ile Thr Asp Lys Ser Glu Ile Phe Val His Gly Asp Leu
1490 1495 1500
Lys Trp Asp Ile Phe Gln Val Met Ile Ser Arg Ser Thr Thr Pro Asp
1505 1510 1515 1520
Leu Ile Lys Ile Gly Met Lys Leu Gln Glu Phe Phe Thr Gln Gln Phe
1525 1530 1535
Asp Thr Ser Lys Arg Ala Leu Ser Thr Trp Gly Pro Val Pro Tyr Leu

	1540		1545		1550
Pro	Pro	Lys	Thr	Met	Thr
			Ser	Asn	Leu
			Glu	Lys	Ser
			Ser	Ser	Gln
			Glu	Gln	
	1555		1560		1565
Leu	Leu	Asp	Ala	Ala	His
			His	Arg	His
			Trp	Pro	Gly
			Val	Leu	Lys
	1570		1575		1580
Val	Ser	Gly	Cys	His	Ile
			Ser	Leu	Phe
			Gln	Ile	Pro
			Leu	Pro	Glu
			Asp		
1585			1590		1595
			1600		
Gly	Met	Gln	Phe	Gly	Gly
			Ser	Met	Ser
			Leu	His	Gly
			Asn	His	Met
			Thr		
			1605		1610
			1615		
Leu	Ala	Cys	Phe	His	Gly
			Pro	Asn	Phe
			Arg	Ser	Lys
			Ser	Trp	Ala
			Leu		
			1620		1625
			1630		
Phe	His	Leu	Glu	Glu	Pro
			Asn	Ile	Ala
			Phe	Trp	Thr
			Glu	Ala	Gln
			Lys		
			1635		1640
			1645		
Ile	Trp	Glu	Asp	Gly	Ser
			Ser	Asp	His
			Ser	Thr	Tyr
			Ile	Val	Gln
			Thr		
			1650		1655
			1660		
Leu	Asp	Phe	His	Leu	Gly
			His	Asn	Thr
			Met	Val	Thr
			Lys	Pro	Cys
			Gly		
1665			1670		1675
			1680		
Ala	Leu	Glu	Ser	Pro	Met
			Ala	Thr	Ile
			Thr	Lys	Ile
			Thr	Arg	Arg
			Arg		
			1685		1690
			1695		
His	Glu	Asn	Pro	Pro	His
			Gly	Val	Ala
			Ser	Val	Lys
			Glu	Trp	Phe
			Asn		
			1700		1705
			1710		
Tyr	Val	Thr	Ala	Thr	Arg
			Asn	Glu	Glu
			Leu	Asn	Leu
			Leu	Arg	Asn
			Val		
			1715		1720
			1725		
Asp	Ala	Asn	Asn	Thr	Glu
			Asn	Ser	Thr
			Thr	Val	Lys
			Asn	Ser	Ser
			Leu		
			1730		1735
			1740		
Leu	Ser	Gly	Phe	Arg	Gly
			Gly	Ser	Ser
			Tyr	Asn	His
			Glu	Thr	Glu
			Thr		
1745			1750		1755
			1760		
Ile	Phe	Ala	Leu	Pro	Arg
			Met	Gln	Leu
			Asp	Phe	Lys
			Ser	Ile	His
			Val		
			1765		1770
			1775		
Gln	Glu	Pro	Gln	Glu	Pro
			Ser	Leu	Gln
			Asp	Ala	Ser
			Leu	Lys	Pro
			Lys		
			1780		1785
			1790		
Val	Glu	Cys	Ser	Val	Val
			Thr	Glu	Phe
			Thr	Asp	His
			Ile	Cys	Val
			Thr		
			1795		1800
			1805		
Met	Asp	Ala	Glu	Leu	Ile
			Met	Phe	Leu
			His	Asp	Leu
			Val	Ser	Ala
			Tyr		
			1810		1815
			1820		
Leu	Lys	Glu	Lys	Glu	Lys
			Ala	Ile	Phe
			Pro	Pro	Arg
			Ile	Leu	Ser
			Thr		
1825			1830		1835
			1840		
Arg	Pro	Gly	Gln	Lys	Ser
			Pro	Ile	Ile
			Ile	His	Asp
			Asp	Asn	Ser
			Ser		
			1845		1850
			1855		
Asp	Lys	Asp	Arg	Glu	Asp
			Ser	Ile	Thr
			Tyr	Thr	Thr
			Val	Asp	Trp
			Arg		
			1860		1865
			1870		
Asp	Phe	Met	Cys	Asn	Thr
			Trp	His	Leu
			Glu	Pro	Thr
			Leu	Arg	Leu
			Ile		
			1875		1880
			1885		
Ser	Trp	Thr	Gly	Arg	Lys
			Ile	Asp	Pro
			Val	Gly	Val
			Asp	Tyr	Ile
			Leu		
			1890		1895
			1900		
Gln	Lys	Leu	Gly	Phe	His
			His	Ala	Arg
			Thr	Thr	Ile
			Pro	Lys	Trp
			Leu		
1905			1910		1915
			1920		
Gln	Arg	Gly	Val	Met	Asp
			Pro	Leu	Asp
			Lys	Val	Leu
			Ser	Val	Leu
			Ile		
			1925		1930
			1935		
Lys	Lys	Leu	Gly	Thr	Ala
			Leu	Gln	Asp
			Glu	Lys	Glu
			Lys	Lys	Gly
			Lys		
			1940		1945
			1950		
Asp	Lys	Glu	Glu	His	
			1955		1957

<210> 3792

<211> 124

<212> PRT

<213> Homo sapiens

<400> 3792

Gln Asn Gly Ser Thr Pro Leu His His Ala Ala Ser Lys Asn Arg His

1	5	10	15
Glu Ile Ala	Leu Met Leu Leu Glu Gly Gly Ala Asn Pro Asp Gly Lys		
	20	25	30
Asp His Tyr	Glu Ala Thr Ala Lys His Gln Ala Thr Ala Lys Gly Asn		
	35	40	45
Phe Lys Met	Ile His Ile Leu Leu Tyr Tyr Lys Ala Ser Thr Ile Ile		
	50	55	60
Gln Asp Thr	Glu Gly Asn Thr Pro Pro His Leu Val Cys Asp Arg Val		
	65	70	75
Glu Glu Ala	Lys Leu Leu Val Ser Gln Gly Ala Ser Ile Tyr Ile Glu		
	85	90	95
Asn Lys Glu	Glu Lys Asp Pro Leu Gln Val Ala Lys Gly Ala Leu Gly		
	100	105	110
Leu Val Leu	Lys Arg Met Val Glu Gly		
	115	120	121

<210> 3793
 <211> 112
 <212> PRT
 <213> Homo sapiens

<400> 3793

Asp Ile Val	Pro Asn Pro Lys Met Ala Pro Leu Gly Asp Glu Ala Pro		
1	5	10	15
Thr Leu Glu	Lys Val Leu Thr Pro Glu Leu Ser Glu Glu Glu Val Ser		
	20	25	30
Thr Arg Asp	Asp Ile Gln Phe His His Phe Ser Ser Glu Glu Ala Leu		
	35	40	45
Gln Lys Val	Lys Tyr Phe Val Ala Lys Glu Asp Pro Ser Ser Gln Glu		
	50	55	60
Glu Ala His	Thr Pro Glu Ala Pro Pro Pro Gln Pro Pro Ser Ser Glu		
	65	70	75
Arg Cys Leu	Gly Glu Met Lys Cys Thr Leu Val Arg Gly Asp Ser Ser		
	85	90	95
Pro Arg Gln	Ala Glu Leu Lys Ser Gly Pro Ala Ser Arg Pro Ala Leu		
	100	105	110
			112

<210> 3794
 <211> 87
 <212> PRT
 <213> Homo sapiens

<221> misc_feature
 <222> (1)...(87)
 <223> Xaa = any amino acid or nothing

<400> 3794

Ser Tyr Trp	Val Gly Glu Asp Tyr Thr Tyr Lys Phe Phe Glu Val Ile		
1	5	10	15
Leu Ile Asp	Pro Phe His Lys Ala Ile Arg Arg Asn Pro Asp Thr Gln		
	20	25	30
Trp Ile Ser	Lys Ala Val Tyr Lys His Arg Glu Met Cys Gly Leu Thr		
	35	40	45
Ser Thr Gly	Arg Lys Ser His Gly Leu Glu Lys Asp Arg Met Phe Pro		
	50	55	60
His Ala Ile	Gly Gly Ser Cys Arg Ala Ala Xaa Arg Arg Arg Lys Thr		

65 70
 Leu Gln Phe Pro Cys Tyr His
 85 87

75

80

<210> 3795
 <211> 189
 <212> PRT
 <213> Homo sapiens

<400> 3795
 Gly Gly Met Asp Ser Arg Val Ser Gly Thr Thr Ser Asn Gly Glu Thr
 1 5 10 15
 Lys Pro Val Tyr Pro Val Met Glu Lys Lys Glu Glu Asp Gly Thr Leu
 20 25 30
 Glu Arg Gly His Trp Asn Asn Lys Met Glu Phe Val Leu Ser Val Ala
 35 40 45
 Gly Glu Ile Ile Gly Leu Gly Asn Val Trp Arg Phe Pro Tyr Leu Cys
 50 55 60
 Tyr Lys Asn Gly Gly Gly Ala Phe Phe Ile Pro Tyr Leu Val Phe Leu
 65 70 75 80
 Phe Thr Cys Gly Ile Pro Val Phe Leu Leu Glu Thr Ala Leu Gly Gln
 85 90 95
 Tyr Thr Ser Gln Gly Gly Val Thr Ala Trp Arg Lys Ile Cys Pro Ile
 100 105 110
 Phe Glu Gly Ile Gly Tyr Ala Ser Gln Met Ile Val Ile Leu Leu Asn
 115 120 125
 Val Tyr Tyr Ile Ile Val Leu Ala Trp Ala Leu Phe Tyr Leu Phe Ser
 130 135 140
 Ser Phe Thr Ile Asp Leu Pro Trp Gly Gly Cys Tyr His Glu Trp Asn
 145 150 155 160
 Thr Glu His Cys Met Glu Phe Gln Lys Thr Asn Gly Ser Leu Asn Gly
 165 170 175
 Thr Ser Glu Asn Ala Thr Ser Pro Val Ile Glu Phe Trp
 180 185 189

<210> 3796
 <211> 196
 <212> PRT
 <213> Homo sapiens

<400> 3796
 Lys Pro Ala Ser Thr Tyr Ser Thr Ser Gln Pro Ser Met Ala Pro Leu
 1 5 10 15
 Leu Pro Ile Arg Thr Leu Pro Leu Ile Leu Ile Leu Leu Ala Leu Leu
 20 25 30
 Ser Pro Gly Ala Ala Asp Phe Asn Ile Ser Ser Leu Ser Gly Leu Leu
 35 40 45
 Ser Pro Ala Leu Thr Glu Ser Leu Leu Val Ala Leu Pro Pro Cys His
 50 55 60
 Leu Thr Gly Gly Asn Ala Thr Leu Met Val Arg Arg Ala Asn Asp Ser
 65 70 75 80
 Lys Val Val Thr Ser Ser Phe Val Val Pro Pro Cys Arg Gly Arg Arg
 85 90 95
 Glu Leu Val Ser Val Val Asp Ser Gly Ala Gly Phe Thr Val Thr Arg
 100 105 110
 Leu Ser Ala Tyr Gln Val Thr Asn Leu Val Pro Gly Thr Lys Phe Tyr
 115 120 125
 Ile Ser Tyr Leu Val Lys Lys Gly Thr Ala Thr Glu Ser Ser Arg Glu

130	135	140
Ile Pro Met Phe Thr Leu Pro Arg Arg Asn Met Glu Ser Ile Gly Leu		
145	150	155
Gly Met Ala Arg Thr Gly Gly Met Val Val Ile Thr Val Leu Leu Ser		160
	165	170
Val Ala Met Phe Leu Leu Val Leu Gly Phe Ile Ile Ala Leu Ala Leu		175
	180	185
Gly Ser Arg Lys		190
195 196		

<210> 3797

<211> 518

<212> PRT

<213> Homo sapiens

<400> 3797

Ala Thr Arg Leu Leu Arg Gly Ser Gly Ser Trp Gly Cys Ser Arg Leu		
1	5	10
Arg Phe Gly Pro Pro Ala Tyr Arg Arg Phe Ser Ser Gly Gly Ala Tyr		15
	20	25
Pro Asn Ile Pro Leu Ser Ser Pro Leu Pro Gly Val Pro Lys Pro Val		30
	35	40
Phe Ala Thr Val Asp Gly Gln Glu Lys Phe Glu Thr Lys Val Thr Thr		45
	50	55
Leu Asp Asn Gly Leu Arg Val Ala Ser Gln Asn Lys Phe Gly Gln Phe		60
	65	70
Cys Thr Val Gly Ile Leu Ile Asn Ser Gly Ser Arg Tyr Glu Ala Lys		75
	85	90
Tyr Leu Ser Gly Ile Ala His Phe Leu Glu Lys Leu Ala Phe Ser Ser		95
	100	105
Thr Ala Arg Phe Asp Ser Lys Asp Glu Ile Leu Leu Thr Leu Glu Lys		110
	115	120
His Gly Gly Ile Cys Asp Cys Gln Thr Ser Arg Asp Thr Thr Met Tyr		125
	130	135
Ala Val Ser Ala Asp Ser Lys Gly Leu Asp Thr Val Val Ala Leu Leu		140
	145	150
Ala Asp Val Val Leu Gln Pro Arg Leu Thr Asp Glu Glu Val Glu Met		155
	165	170
Thr Arg Met Ala Val Gln Phe Glu Leu Glu Asp Leu Asn Leu Arg Pro		175
	180	185
Asp Pro Glu Pro Leu Leu Thr Glu Met Ile His Glu Ala Ala Tyr Arg		190
	195	200
Glu Asn Thr Val Gly Leu His Arg Phe Cys Pro Thr Glu Asn Val Ala		205
	210	215
Lys Ile Asn Arg Glu Val Leu His Ser Tyr Leu Arg Asn Tyr Tyr Thr		220
	225	230
Pro Asp Arg Met Val Leu Ala Gly Val Gly Val Glu His Glu His Leu		235
	245	250
Val Asp Cys Ala Arg Lys Tyr Leu Leu Gly Val Gln Pro Ala Trp Gly		255
	260	265
Ser Ala Glu Ala Val Asp Ile Asp Arg Ser Val Ala Gln Tyr Thr Gly		270
	275	280
Gly Ile Ala Lys Leu Glu Arg Asp Met Ser Asn Val Ser Leu Gly Pro		285
	290	295
Thr Pro Ile Pro Glu Leu Thr His Ile Met Val Gly Leu Glu Ser Cys		300
	305	310
Ser Phe Leu Glu Glu Asp Phe Ile Pro Phe Ala Val Leu Asn Met Met		315
	325	330
Met Gly Gly Gly Gly Ser Phe Ser Ala Gly Gly Pro Gly Lys Gly Met		335
	340	345
Phe Ser Arg Leu Tyr Leu Asn Val Leu Asn Arg His His Trp Met Tyr		350

355	360	365
Asn Ala Thr Ser Tyr His His Ser Tyr Glu Asp Thr Gly Leu Leu Cys		
370	375	380
Ile His Ala Ser Ala Asp Pro Arg Gln Val Arg Glu Met Val Glu Ile		
385	390	395
Ile Thr Lys Glu Phe Ile Leu Met Gly Gly Thr Val Asp Thr Val Glu		400
405	410	415
Leu Glu Arg Ala Lys Thr Gln Leu Thr Ser Met Leu Met Met Asn Leu		
420	425	430
Glu Ser Arg Pro Val Ile Phe Glu Asp Val Gly Arg Gln Val Leu Ala		
435	440	445
Thr Arg Ser Arg Lys Leu Pro His Glu Leu Cys Thr Leu Ile Arg Asn		
450	455	460
Val Lys Pro Glu Asp Val Lys Arg Val Ala Ser Lys Met Leu Arg Gly		
465	470	475
Lys Pro Ala Val Ala Ala Leu Gly Asp Leu Thr Asp Leu Pro Thr Tyr		480
485	490	495
Glu His Ile Gln Thr Ala Leu Ser Ser Lys Asp Gly Arg Leu Pro Arg		
500	505	510
Thr Tyr Arg Leu Phe Arg		
515	518	

<210> 3798
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 3798

Lys Arg Leu Val Glu Ala Gly Val Pro Arg Thr Phe Asp Gly Ile Val		
1	5	10
Gly Glu Gly Gly Ala Gln Ser Arg Ser Cys Trp Pro Trp Gly Val Thr		15
20	25	30
Ala Gln Thr Pro Ala Phe Ser Ala Asp Ser Leu Asn Cys Leu Lys Asn		
35	40	45
Cys Met Ser Ile Thr Met Gly Ser Val Arg Pro Ser Val Glu Gln Phe		
50	55	60
His Lys Tyr Leu Pro Trp Phe Leu Asn Asp Arg Pro Asn Ile Lys Cys		
65	70	75
Pro Lys Gly Gly Leu Ala Ala Tyr Ser Thr Ser Val Asn Leu Thr Ser		80
85	90	95
Asp Gly Gln Val Leu Ala Ser Arg Phe Met Ala Tyr His Lys Pro Leu		
100	105	110
Lys Asn Ser Gln Asp Tyr Thr Glu Ala Leu Arg Ala Ala Arg Glu Leu		
115	120	125
Ala Ala Asn Ile Thr Ala Asp Leu Arg Lys Val Pro Gly Thr Asp Pro		
130	135	140
Ala Phe Glu Val Phe Pro Tyr Thr Ile Thr Asn Val Phe Tyr Glu Gln		
145	150	155
Tyr Leu Thr Ile Leu Pro Glu Gly Leu Phe Met Leu Ser Leu Cys Leu		160
165	170	175
Val Pro Thr Phe Ala Val Ser Cys Leu Leu Leu Gly Leu Asp Leu Arg		
180	185	190
Ser Gly Leu Leu Asn Leu Leu Ser Ile Val Met Ile Leu Val Asp Thr		
195	200	205
Val Gly Phe Met Ala Leu Trp Gly Ile Ser Tyr Asn Ala Val Ser Leu		
210	215	220
Ile Asn Leu Val Ser		
225	229	

<210> 3799
 <211> 229
 <212> PRT
 <213> Homo sapiens

<400> 3799
 Lys Arg Leu Val Glu Ala Gly Val Pro Arg Thr Phe Asp Gly Ile Val
 1 5 10 15
 Gly Glu Gly Gly Ala Gln Ser Arg Ser Cys Trp Pro Trp Gly Val Thr
 20 25 30
 Ala Gln Thr Pro Ala Phe Ser Ala Asp Ser Leu Asn Cys Leu Lys Asn
 35 40 45
 Cys Met Ser Ile Thr Met Gly Ser Val Arg Pro Ser Val Glu Gln Phe
 50 55 60
 His Lys Tyr Leu Pro Trp Phe Leu Asn Asp Arg Pro Asn Ile Lys Cys
 65 70 75 80
 Pro Lys Gly Gly Leu Ala Ala Tyr Ser Thr Ser Val Asn Leu Thr Ser
 85 90 95
 Asp Gly Gln Val Leu Ala Ser Arg Phe Met Ala Tyr His Lys Pro Leu
 100 105 110
 Lys Asn Ser Gln Asp Tyr Thr Glu Ala Leu Arg Ala Ala Arg Glu Leu
 115 120 125
 Ala Ala Asn Ile Thr Ala Asp Leu Arg Lys Val Pro Gly Thr Asp Pro
 130 135 140
 Ala Phe Glu Val Phe Pro Tyr Thr Ile Thr Asn Val Phe Tyr Glu Gln
 145 150 155 160
 Tyr Leu Thr Ile Leu Pro Glu Gly Leu Phe Met Leu Ser Leu Cys Leu
 165 170 175
 Val Pro Thr Phe Ala Val Ser Cys Leu Leu Leu Gly Leu Asp Leu Arg
 180 185 190
 Ser Gly Leu Leu Asn Leu Leu Ser Ile Val Met Ile Leu Val Asp Thr
 195 200 205
 Val Gly Phe Met Ala Leu Trp Gly Ile Ser Tyr Asn Ala Val Ser Leu
 210 215 220
 Ile Asn Leu Val Ser
 225 229

<210> 3800
 <211> 261
 <212> PRT
 <213> Homo sapiens

<400> 3800
 Gly Ile Phe Arg Ser Leu Arg Val Leu Phe Pro Leu Phe Ser Val Gly
 1 5 10 15
 Arg Pro Gln Phe Ala Arg Ser Leu Ser Ala Ala Pro Gln Leu Ser Asp
 20 25 30
 Thr Ala Asp Thr Met Gly Phe Gly Asp Leu Lys Ser Pro Ala Gly Leu
 35 40 45
 Gln Val Leu Asn Asp Tyr Leu Ala Asp Lys Ser Tyr Ile Glu Gly Tyr
 50 55 60
 Val Pro Ser Gln Ala Asp Val Ala Val Phe Glu Ala Val Ser Ser Pro
 65 70 75 80
 Pro Pro Ala Asp Leu Cys His Ala Leu Arg Trp Tyr Asn His Ile Lys
 85 90 95
 Ser Tyr Glu Lys Glu Lys Ala Ser Leu Pro Gly Val Lys Lys Ala Leu
 100 105 110
 Gly Lys Tyr Gly Pro Ala Asp Val Glu Asp Thr Thr Gly Ser Gly Ala
 115 120 125
 Thr Asp Ser Lys Asp Asp Asp Asp Ile Asp Leu Phe Gly Ser Asp Asp

130	135	140
Glu Glu Glu Ser Glu Glu	Ala Lys Arg Leu Arg	Glu Glu Arg Leu Ala
145	150	155
Gln Tyr Glu Ser Lys Lys	Ala Lys Lys Pro Ala	Leu Val Ala Lys Ser
165	170	175
Ser Ile Leu Leu Asp Val	Lys Pro Trp Asp Asp	Glu Thr Asp Met Ala
180	185	190
Lys Leu Glu Glu Cys Val	Arg Ser Ile Gln Ala	Asp Gly Leu Val Trp
195	200	205
Gly Ser Ser Lys Leu Val	Pro Val Gly Tyr Gly	Ile Lys Lys Leu Gln
210	215	220
Ile Gln Cys Val Val Glu	Asp Asp Lys Val Gly	Thr Asp Met Leu Glu
225	230	235
Glu Gln Ile Thr Ala Phe	Glu Asp Tyr Val Gln	Ser Met Asp Val Ala
245	250	255
Ala Phe Asn Lys Ile		
260 261		

<210> 3801
 <211> 167
 <212> PRT
 <213> Homo sapiens

<400> 3801

Ser Arg Glu Met Glu Leu Val Thr Phe Arg Asp Val Ala Ile Glu Phe	
1 5 10 15	
Ser Pro Glu Glu Trp Lys Cys Leu Asp Pro Ala Gln Gln Asn Leu Tyr	
20 25 30	
Arg Asp Val Met Leu Glu Asn Tyr Arg Asn Leu Val Ser Leu Gly Phe	
35 40 45	
Val Ile Ser Asn Pro Asp Leu Val Thr Cys Leu Glu Gln Ile Lys Glu	
50 55 60	
Pro Cys Asn Leu Lys Ile His Glu Thr Ala Ala Lys Pro Pro Ala Ile	
65 70 75 80	
Cys Ser Pro Phe Ser Gln Asp Leu Ser Pro Val Gln Gly Ile Glu Asp	
85 90 95	
Ser Phe His Lys Leu Ile Leu Lys Arg Tyr Glu Lys Cys Gly His Glu	
100 105 110	
Asn Leu Gln Leu Arg Lys Gly Cys Lys Arg Val Asn Glu Cys Lys Val	
115 120 125	
Gln Lys Gly Val Asn Asn Gly Val Tyr Gln Cys Leu Ser Thr Thr Gln	
130 135 140	
Ser Lys Ile Phe Gln Cys Asn Thr Cys Val Arg Val Phe Ser Thr Ser	
145 150 155 160	
Ser His Ser Asn Lys His Lys	
165 167	

<210> 3802
 <211> 476
 <212> PRT
 <213> Homo sapiens

<400> 3802

Val Thr Val Ser Pro Glu Thr His Met Asp Leu Thr Lys Gly Cys Val	
1 5 10 15	
Thr Phe Glu Asp Ile Ala Ile Tyr Phe Ser Gln Asp Glu Trp Gly Leu	
20 25 30	
Leu Asp Glu Ala Gln Arg Leu Leu Tyr Leu Glu Val Met Leu Glu Asn	

			35				40					45				
Phe	Ala	Leu	Val	Ala	Ser	Leu	Gly	Cys	Gly	His	Gly	Thr	Glu	Asp	Glu	
	50					55					60					
Glu	Thr	Pro	Ser	Asp	Gln	Asn	Val	Ser	Val	Gly	Val	Ser	Gln	Ser	Lys	
	65				70					75					80	
Ala	Gly	Ser	Ser	Thr	Gln	Lys	Thr	Gln	Ser	Cys	Glu	Met	Cys	Val	Pro	
				85					90					95		
Val	Leu	Lys	Asp	Ile	Leu	His	Leu	Ala	Asp	Leu	Pro	Gly	Gln	Lys	Pro	
			100				105						110			
Tyr	Leu	Val	Gly	Glu	Cys	Thr	Asn	His	His	Gln	His	Gln	Lys	His	His	
		115					120					125				
Ser	Ala	Lys	Lys	Ser	Leu	Lys	Arg	Asp	Met	Asp	Arg	Ala	Ser	Tyr	Val	
	130					135					140					
Lys	Cys	Cys	Leu	Phe	Cys	Met	Ser	Leu	Lys	Pro	Phe	Arg	Lys	Trp	Glu	
145					150					155					160	
Val	Gly	Lys	Asp	Leu	Pro	Ala	Met	Leu	Arg	Leu	Leu	Arg	Ser	Leu	Val	
				165					170					175		
Phe	Pro	Gly	Gly	Lys	Lys	Pro	Gly	Thr	Ile	Thr	Glu	Cys	Gly	Glu	Asp	
			180					185					190			
Ile	Arg	Ser	Gln	Lys	Ser	His	Tyr	Lys	Ser	Gly	Glu	Cys	Gly	Lys	Ala	
		195					200					205				
Ser	Arg	His	Lys	His	Thr	Pro	Val	Tyr	His	Pro	Arg	Val	Tyr	Thr	Gly	
	210					215					220					
Lys	Lys	Leu	Tyr	Glu	Cys	Ser	Lys	Cys	Gly	Lys	Ala	Phe	Arg	Gly	Lys	
225					230					235					240	
Tyr	Ser	Leu	Val	Gln	His	Gln	Arg	Val	His	Thr	Gly	Glu	Arg	Pro	Trp	
				245					250					255		
Glu	Cys	Asn	Glu	Cys	Gly	Lys	Phe	Phe	Ser	Gln	Thr	Ser	His	Leu	Asn	
			260					265					270			
Asp	His	Arg	Arg	Ile	His	Thr	Gly	Glu	Arg	Pro	Tyr	Glu	Cys	Ser	Glu	
		275					280					285				
Cys	Gly	Lys	Leu	Phe	Arg	Gln	Asn	Ser	Ser	Leu	Val	Asp	His	Gln	Lys	
	290					295					300					
Ile	His	Thr	Gly	Ala	Arg	Pro	Tyr	Glu	Cys	Ser	Gln	Cys	Gly	Lys	Ser	
305					310					315					320	
Phe	Ser	Gln	Lys	Ala	Thr	Leu	Val	Lys	His	Gln	Arg	Val	His	Thr	Gly	
				325					330					335		
Glu	Arg	Pro	Tyr	Lys	Cys	Gly	Glu	Cys	Gly	Asn	Ser	Phe	Ser	Gln	Ser	
			340					345					350			
Ala	Ile	Leu	Asn	Gln	His	Arg	Arg	Ile	His	Thr	Gly	Ala	Lys	Pro	Tyr	
		355					360					365				
Glu	Cys	Gly	Gln	Cys	Gly	Lys	Ser	Phe	Ser	Gln	Lys	Ala	Thr	Leu	Ile	
	370					375					380					

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<210> 3803
<211> 141
<212> PRT
<213> Homo sapiens
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<400> 3803

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Leu Phe Pro Phe Leu Gly Ser Glu Ser Lys Asn Gly Glu Ala Asp Ser
 1           5           10           15
Ser Asp Lys Glu Met Lys His Gly Gln Lys Ser Pro Thr Gly Lys Gln
           20           25           30
Thr Ser Gln His Leu Lys Arg Leu Lys Lys Ser Gly Leu Gly His Leu
           35           40           45
Lys Trp Thr Lys Ala Glu Asp Ile Asp Ile Glu Thr Pro Gly Ser Ile
           50           55           60
Leu Val Asn Thr Asn Leu Arg Ala Leu Ile Asn Lys His Thr Phe Ala
           65           70           75           80
Ser Leu Pro Gln His Phe Gln Gln Tyr Leu Leu Leu Leu Leu Pro Glu
           85           90           95
Val Asp Arg Gln Met Gly Ser Asp Gly Ile Leu Arg Leu Ser Thr Ser
           100          105          110
Ala Leu Asn Asn Glu Phe Phe Ala Tyr Ala Ala Gln Gly Trp Lys Gln
           115          120          125
Arg Leu Ala Glu Gly Lys Phe Val Phe Ser Ile Ile Met
           130          135          140 141

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<210> 3804

<211> 94

<212> PRT

<213> Homo sapiens

<400> 3804

```

Ser Ser Ser Arg Ala Ser Pro Pro Glu His Pro Ser Ser Gln Ala His
 1           5           10           15
Cys Gly Pro Leu Val Leu Ser His Ala Cys Pro Glu Val Thr Asn Lys
           20           25           30
Trp Ser Thr Gly Ser Ser Ser Ser Pro Asn Ser Ser Trp Val Ser Ser
           35           40           45
Pro Leu Gln Pro Glu Gly Leu Ser Gly Ser Ser Arg Met Lys Gly Gly
           50           55           60
Ser Ala Thr Lys Ile Leu Leu Glu Thr Leu Leu Leu Ala Ala His Met
           65           70           75           80
Thr Ala Asp Gln Gly Ile Ala Ser Ser Gln Arg Cys Leu Leu
           85           90           94

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<210> 3805

<211> 128

<212> PRT

<213> Homo sapiens

<400> 3805

```

Gln Ser Ala Asp Thr Leu Phe Pro Gly Asp Ile Asn Phe Asn Val Ser
 1           5           10           15
Gly Leu Phe Ser Ala Val Thr Leu Gln Asp Thr Val Ser Asp Arg Leu
           20           25           30
Ala Ser Glu Glu Leu Pro Ser Thr Ala Val Pro Thr Pro Ala Thr Thr
           35           40           45
Pro Ala Pro Ala Pro Ala Pro Ala Thr Ala Pro Ala Leu Val
           50           55           60
Ser Ala Ala Thr Lys Glu Arg Thr Glu Ser Glu Val Pro Pro Arg Pro
           65           70           75           80
Ala Ser Pro Lys Val Thr Arg Ser Pro Pro Glu Thr Ala Ala Pro Val
           85           90           95
Glu Asp Met Ala Arg Arg Ser Glu Leu Ala Val Gly Gly Glu Glu Gly

```


			100					105					110				
Thr	Glu	Gly	Gly	Arg	Gly	Glu	Gly	Thr	Gly	Ser	Pro	Met	Ser	Ser	Tyr		
		115					120					125			128		

<210> 3806

<211> 328

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(328)

<223> Xaa = any amino acid or nothing

<400> 3806

Leu	Gln	Gly	Asp	Thr	Trp	His	Leu	Ser	Phe	Leu	Ser	His	Phe	Ser	Arg		
1				5					10					15			
Leu	His	Gly	Gly	Val	Pro	Gly	Arg	Gly	Leu	Leu	Glu	Gly	Asn	Leu	Leu		
		20						25					30				
Gln	Pro	Gln	Ala	Pro	Gly	His	Asp	Met	Thr	Ser	Ile	Pro	Phe	Pro	Gly		
		35					40					45					
Asp	Arg	Leu	Leu	Gln	Val	Asp	Gly	Val	Ile	Leu	Cys	Gly	Leu	Thr	His		
	50					55					60						
Lys	Gln	Ala	Val	Gln	Cys	Leu	Lys	Gly	Pro	Gly	Gln	Val	Ala	Arg	Leu		
65					70					75					80		
Val	Leu	Glu	Arg	Arg	Val	Pro	Arg	Ser	Thr	Gln	Gln	Cys	Pro	Ser	Ala		
			85						90						95		
Asn	Asp	Ser	Met	Gly	Asp	Glu	Arg	Thr	Ala	Val	Ser	Leu	Val	Thr	Ala		
			100					105					110				
Leu	Pro	Gly	Arg	Pro	Ser	Ser	Cys	Val	Ser	Val	Thr	Asp	Gly	Pro	Lys		
		115					120					125					
Phe	Xaa	Ser	Ser	Asn	Xaa	Lys	Arg	Ile	Ala	Asn	Gly	Leu	Gly	Phe	Ser		
	130					135					140						
Phe	Val	Gln	Met	Glu	Lys	Glu	Ser	Cys	Ser	His	Leu	Lys	Ser	Asp	Leu		
145					150					155					160		
Val	Arg	Ile	Lys	Arg	Leu	Phe	Pro	Gly	His	Pro	Ala	Glu	Glu	Asn	Gly		
				165					170					175			
Ala	Ile	Ala	Ala	Gly	Asp	Ile	Ile	Leu	Gly	Arg	Glu	Trp	Glu	Gly	Pro		
			180					185					190				
Arg	Lys	Ala	Ser	Ser	Ser	Arg	Cys	Arg	Gly	Ser	Trp	Ala	Met	Gln	Leu		
		195					200					205					
Ser	Val	Gln	Ala	Gly	Pro	Ser	Phe	Ala	Ser	Tyr	Tyr	Pro	Ala	Ala	Val		
	210					215					220						
Glu	Val	Leu	His	Leu	Leu	Arg	Gly	Ala	Pro	Gln	Glu	Val	Thr	Leu	Leu		
225					230					235					240		
Leu	Cys	Arg	Pro	Pro	Pro	Gly	Ala	Leu	Pro	Glu	Leu	Glu	Gln	Glu	Trp		
				245					250					255			
Gln	Thr	Pro	Glu	Leu	Ser	Ala	Asp	Lys	Glu	Phe	Thr	Arg	Ala	Thr	Cys		
		260					265						270				
Thr	Asp	Ser	Cys	Thr	Ser	Pro	Ile	Leu	Gly	Ser	Arg	Gly	Gln	Leu	Gly		
	275						280					285					
Gly	Thr	Val	Pro	Pro	Gln	Met	Gln	Gly	Lys	Ala	Trp	Gly	Leu	Arg	Pro		
	290					295					300						
Glu	Ser	Ser	Gln	Lys	Ala	Ile	Arg	Glu	Gly	Thr	Met	Gly	Ala	Lys	Thr		
305					310					315					320		
Glu	Arg	Asp	Leu	Gly	Pro	Val	Pro										
			325				328										

<210> 3807

<211> 194

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(194)

<223> Xaa = any amino acid or nothing

<400> 3807

```

Arg Cys Pro Ser Leu Leu Pro Pro Ser Trp Pro Leu Pro Thr Leu Gln
 1          5          10          15
Thr Leu Thr Arg Thr Pro Gly Asn Lys Ala Ile Ala Gly Gly Ala Gly
          20          25          30
Leu Trp Ala Val Leu Trp Gly Ser Glu Arg Thr Pro Pro Tyr Arg Xaa
          35          40          45
Gly Asn Xaa Asn Gln Arg Gly Ala Val Pro Cys Leu Arg Pro His Arg
          50          55          60
Leu Arg Pro Gln Asp Lys Phe Leu Val Leu Ala Ser Asp Gly Leu Trp
 65          70          75          80
Asp Met Leu Ser Asn Glu Asp Val Val Arg Leu Val Val Gly His Leu
          85          90          95
Ala Glu Ala Asp Trp His Lys Thr Asp Leu Ala Gln Arg Pro Ala Asn
          100          105          110
Leu Gly Leu Met Gln Ser Leu Leu Leu Gln Arg Lys Ala Ser Gly Leu
          115          120          125
His Glu Ala Asp Gln Asn Ala Ala Thr Arg Leu Ile Arg His Ala Ile
          130          135          140
Gly Asn Asn Glu Tyr Gly Glu Met Glu Ala Glu Arg Leu Ala Ala Met
145          150          155          160
Leu Thr Leu Pro Glu Asp Leu Ala Arg Met Tyr Arg Asp Asp Ile Thr
          165          170          175
Val Thr Val Val Tyr Phe Asn Ser Glu Ser Ile Gly Ala Tyr Tyr Lys
          180          185          190
Gly Gly
194

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<210> 3808

<211> 723

<212> PRT

<213> Homo sapiens

<400> 3808

```

Ser Gln Tyr Ser Glu Ser Val Ala Gly Arg Gln Ala Ser Pro Glu Arg
 1          5          10          15
Leu Leu Gly Ser Tyr His Ala Met Ala Ser Thr Val Glu Gly Gly Asp
          20          25          30
Thr Ala Leu Leu Pro Glu Phe Pro Arg Gly Pro Leu Asp Ala Tyr Arg
          35          40          45
Ala Arg Ala Ser Phe Ser Trp Lys Glu Leu Ala Leu Phe Thr Glu Gly
          50          55          60
Glu Gly Met Leu Arg Phe Lys Lys Thr Ile Phe Ser Ala Leu Glu Asn
 65          70          75          80
Asp Pro Leu Phe Ala Arg Ser Pro Gly Ala Asp Leu Ser Leu Glu Lys
          85          90          95
Tyr Arg Glu Leu Asn Phe Leu Arg Cys Lys Arg Ile Phe Glu Tyr Asp
          100          105          110
Phe Leu Ser Val Glu Asp Met Phe Lys Ser Pro Leu Lys Val Pro Ala
          115          120          125
Leu Ile Gln Cys Leu Gly Met Tyr Asp Ser Ser Leu Ala Ala Lys Tyr

```

130	135	140
Leu Leu His Ser Leu Val Phe Gly Ser Ala Val Tyr Ser Ser Gly Ser		
145	150	155
Glu Arg His Leu Thr Tyr Ile Gln Lys Ile Phe Arg Met Glu Ile Phe		160
	165	170
Gly Cys Phe Ala Leu Thr Glu Leu Ser His Gly Ser Asn Thr Lys Ala		175
	180	185
Ile Arg Thr Thr Ala His Tyr Asp Pro Ala Thr Glu Glu Phe Ile Ile		190
	195	200
His Ser Pro Asp Phe Glu Ala Ala Lys Phe Trp Val Gly Asn Met Gly		205
	210	215
Lys Thr Ala Thr His Ala Val Val Phe Ala Lys Leu Cys Val Pro Gly		220
225	230	235
Asp Gln Cys His Gly Leu His Pro Phe Ile Val Gln Ile Arg Asp Pro		240
	245	250
Lys Thr Leu Leu Pro Met Pro Gly Val Met Val Gly Asp Ile Gly Lys		255
	260	265
Lys Leu Gly Gln Asn Gly Leu Asp Asn Gly Phe Ala Met Phe His Lys		270
	275	280
Val Arg Val Pro Arg Gln Ser Leu Leu Asn Arg Met Gly Asp Val Thr		285
	290	295
Pro Glu Gly Thr Tyr Val Ser Pro Phe Lys Asp Val Arg Gln Arg Phe		300
305	310	315
Gly Ala Ser Leu Gly Ser Leu Ser Ser Gly Arg Val Ser Ile Val Ser		320
	325	330
Leu Ala Ile Leu Asn Leu Lys Leu Ala Val Ala Ile Ala Leu Arg Phe		335
	340	345
Ser Ala Thr Arg Arg Gln Phe Gly Pro Thr Glu Glu Glu Glu Ile Pro		350
	355	360
Val Leu Glu Tyr Pro Met Gln Gln Trp Arg Leu Leu Pro Tyr Leu Ala		365
	370	375
Ala Val Tyr Ala Leu Asp His Phe Ser Lys Ser Leu Phe Leu Asp Leu		380
385	390	395
Val Glu Leu Gln Arg Gly Leu Ala Ser Gly Asp Arg Ser Ala Arg Gln		400
	405	410
Ala Glu Leu Gly Arg Glu Ile His Ala Leu Ala Ser Ala Ser Lys Pro		415
	420	425
Leu Ala Ser Trp Thr Thr Gln Gln Gly Ile Gln Glu Cys Arg Glu Ala		430
	435	440
Cys Gly Gly His Gly Tyr Leu Ala Met Asn Arg Leu Gly Val Leu Arg		445
	450	455
Asp Asp Asn Asp Pro Asn Cys Thr Tyr Glu Gly Asp Asn Asn Ile Leu		460
465	470	475
Leu Gln Gln Thr Ser Asn Tyr Leu Leu Gly Leu Leu Ala His Gln Val		480
	485	490
His Asp Gly Ala Cys Phe Arg Ser Pro Leu Lys Ser Val Asp Phe Leu		495
	500	505
Asp Ala Tyr Pro Gly Ile Leu Asp Gln Lys Phe Glu Val Ser Ser Val		510
	515	520
Ala Asp Cys Leu Asp Ser Ala Val Ala Leu Ala Ala Tyr Lys Trp Leu		525
530	535	540
Val Cys Tyr Leu Leu Arg Glu Thr Tyr Gln Lys Leu Asn Gln Glu Lys		545
	550	555
Arg Ser Gly Ser Ser Asp Phe Glu Ala Arg Asn Lys Cys Gln Val Ser		560
	565	570
His Gly Arg Pro Leu Ala Leu Ala Phe Val Glu Leu Thr Val Val Gln		575
	580	585
Arg Phe His Glu His Val His Gln Pro Ser Val Pro Pro Ser Leu Arg		590
	595	600
Ala Val Leu Gly Arg Leu Ser Ala Leu Tyr Ala Leu Trp Ser Leu Ser		605
	610	615
Arg His Ala Ala Leu Leu Tyr Arg Gly Gly Tyr Phe Ser Gly Glu Gln		620
625	630	635
Ala Gly Glu Val Leu Glu Ser Ala Val Leu Ala Leu Cys Ser Gln Leu		640

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<210> 3809
<211> 237
<212> PRT
<213> Homo sapiens
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```
<210> 3810
<211> 172
<212> PRT
<213> Homo sapiens
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5570

			20					25					30				
Arg	Ser	His	Pro	Ala	Thr	Arg	Arg	Pro	Ala	Ser	Gly	Pro	Ala	Met	Gly		
		35					40					45					
Lys	Thr	Asn	Ser	Lys	Leu	Ala	Pro	Glu	Val	Leu	Glu	Asp	Leu	Val	Gln		
	50					55					60						
Asn	Thr	Glu	Phe	Ser	Glu	Gln	Glu	Leu	Lys	Gln	Trp	Tyr	Lys	Gly	Phe		
65					70					75					80		
Leu	Lys	Asp	Cys	Pro	Ser	Gly	Ile	Leu	Asn	Leu	Glu	Glu	Phe	Gln	Gln		
			85						90					95			
Leu	Tyr	Ile	Lys	Phe	Phe	Pro	Tyr	Gly	Asp	Ala	Ser	Lys	Phe	Ala	Gln		
		100						105					110				
His	Ala	Phe	Arg	Thr	Phe	Asp	Lys	Asn	Gly	Asp	Gly	Thr	Ile	Asp	Phe		
	115						120					125					
Arg	Glu	Phe	Ile	Cys	Ala	Leu	Ser	Val	Thr	Ser	Arg	Gly	Ser	Phe	Glu		
130						135					140						
Gln	Lys	Leu	Asn	Trp	Ala	Phe	Glu	Met	Tyr	Asp	Leu	Asp	Gly	Asp	Gly		
145					150					155					160		
Arg	Ile	Thr	Arg	Leu	Glu	Met	Leu	Glu	Ile	Ile	Glu						
			165					170		172							

<210> 3811

<211> 355

<212> PRT

<213> Homo sapiens

<400> 3811

Gly	Cys	Gly	Tyr	Gly	Cys	Ser	Gly	Ala	Gly	Gly	Ala	Ala	Ile	Gly	Glu		
1				5					10					15			
Pro	Met	Ala	Lys	Trp	Gly	Glu	Gly	Asp	Pro	Arg	Trp	Ile	Val	Glu	Glu		
		20						25					30				
Arg	Ala	Asp	Ala	Thr	Asn	Val	Asn	Asn	Trp	His	Trp	Thr	Glu	Arg	Asp		
	35						40					45					
Ala	Ser	Asn	Trp	Ser	Thr	Asp	Lys	Leu	Lys	Thr	Leu	Phe	Leu	Ala	Val		
	50					55					60						
Gln	Val	Gln	Asn	Glu	Glu	Gly	Lys	Cys	Glu	Val	Thr	Glu	Val	Ser	Lys		
65				70						75					80		
Leu	Asp	Gly	Glu	Ala	Ser	Ile	Asn	Asn	Arg	Lys	Gly	Lys	Leu	Ile	Phe		
			85					90						95			
Phe	Tyr	Glu	Trp	Ser	Val	Lys	Leu	Asn	Trp	Thr	Gly	Thr	Ser	Lys	Ser		
		100						105					110				
Gly	Val	Gln	Tyr	Lys	Gly	His	Val	Glu	Ile	Pro	Asn	Leu	Ser	Asp	Glu		
	115					120						125					
Asn	Ser	Val	Asp	Glu	Val	Glu	Ile	Ser	Val	Ser	Leu	Ala	Lys	Asp	Glu		
130						135					140						
Pro	Asp	Thr	Asn	Leu	Val	Ala	Leu	Met	Lys	Glu	Glu	Gly	Val	Lys	Leu		
145				150						155					160		
Leu	Arg	Glu	Ala	Met	Gly	Ile	Tyr	Ile	Ser	Thr	Leu	Lys	Thr	Glu	Phe		
			165					170						175			
Thr	Gln	Gly	Met	Ile	Leu	Pro	Thr	Met	Asn	Gly	Glu	Ser	Val	Asp	Pro		
		180						185					190				
Val	Gly	Gln	Pro	Ala	Leu	Lys	Thr	Glu	Glu	Arg	Lys	Ala	Lys	Pro	Ala		
	195						200					205					
Pro	Ser	Lys	Thr	Gln	Ala	Arg	Pro	Val	Gly	Val	Lys	Ile	Pro	Thr	Cys		
	210					215					220						
Lys	Ile	Thr	Leu	Lys	Glu	Thr	Phe	Leu	Thr	Ser	Pro	Glu	Glu	Leu	Tyr		
225				230						235					240		
Arg	Val	Phe	Thr	Thr	Gln	Glu	Leu	Val	Gln	Ala	Phe	Thr	His	Ala	Pro		
			245						250					255			
Ala	Thr	Leu	Glu	Ala	Asp	Arg	Gly	Gly	Lys	Phe	His	Met	Val	Asp	Gly		
		260					265					270					
Asn	Val	Ser	Gly	Glu	Phe	Thr	Asp	Leu	Val	Pro	Glu	Lys	His	Ile	Val		

	275		280		285										
Met	Lys	Trp	Arg	Phe	Lys	Ser	Trp	Pro	Glu	Gly	His	Phe	Ala	Thr	Ile
	290					295					300				
Thr	Leu	Thr	Phe	Ile	Asp	Lys	Asn	Gly	Glu	Thr	Glu	Leu	Cys	Met	Glu
305					310						315				320
Gly	Arg	Gly	Ile	Pro	Ala	Pro	Glu	Glu	Glu	Arg	Thr	Arg	Gln	Gly	Trp
				325					330					335	
Gln	Arg	Tyr	Tyr	Phe	Glu	Gly	Ile	Lys	Gln	Thr	Phe	Gly	Tyr	Gly	Ala
			340					345					350		
Arg	Leu	Phe													
		355													

<210> 3812
 <211> 179
 <212> PRT
 <213> Homo sapiens

<400> 3812

Pro	Cys	Gly	Thr	Ala	Ala	Ser	Thr	His	Ala	Tyr	Asp	Arg	Arg	Ala	Lys
1				5					10					15	
Cys	Arg	Gln	Gln	Gln	Gln	Gln	Gln	Gln	Asn	Gly	Gly	Gln	Asn	Lys	Val
		20						25					30		
Arg	Pro	Ala	Lys	Lys	Lys	Thr	Ser	Pro	Ala	Arg	Glu	Val	Ser	Ser	Glu
		35					40					45			
Ser	Gly	Thr	Ser	Gly	Gln	Phe	Thr	Pro	Pro	Ser	Ser	Thr	Ser	Val	Pro
	50				55					60					
Thr	Ile	Ala	Ser	Ser	Ser	Ala	Pro	Val	Ser	Ile	Trp	Ser	Pro	Ala	Ser
65					70					75					80
Ile	Ser	Pro	Leu	Ser	Asp	Pro	Leu	Ser	Thr	Ser	Ser	Ser	Cys	Met	Gln
				85					90					95	
Arg	Ser	Tyr	Pro	Met	Thr	Tyr	Thr	Gln	Ala	Ser	Gly	Tyr	Ser	Gln	Gly
		100						105					110		
Tyr	Ala	Gly	Ser	Thr	Ser	Tyr	Phe	Gly	Gly	Met	Asp	Cys	Gly	Ser	Tyr
	115						120					125			
Leu	Thr	Pro	Met	His	His	Gln	Leu	Pro	Gly	Pro	Gly	Ala	Thr	Leu	Ser
	130					135					140				
Pro	Met	Gly	Thr	Asn	Ala	Val	Thr	Ser	His	Leu	Asn	Gln	Ser	Pro	Ala
145					150					155					160
Ser	Leu	Ser	Thr	Gln	Gly	Tyr	Gly	Ala	Ser	Lys	Leu	Trp	Gly	Phe	Asn
				165					170					175	
Phe	Asn	His													
		179													

<210> 3813
 <211> 338
 <212> PRT
 <213> Homo sapiens

<221> misc_feature
 <222> (1)...(338)
 <223> Xaa = any amino acid or nothing

<400> 3813

Cys	Thr	Glu	Pro	Pro	Arg	Arg	Ser	Thr	Arg	Thr	Pro	Ala	Ala	Leu	Ala
1				5					10					15	
Ser	Leu	Arg	Pro	Tyr	Thr	Asp	Tyr	Val	Val	Val	Ser	Asp	Gln	Ile	Leu
			20					25					30		
Gln	Glu	Ser	Glu	Asp	Phe	Phe	Thr	Leu	Ile	Glu	Ser	His	Glu	Gly	Lys

35	40	45
Pro Leu Lys Leu Met Val Tyr Asn Ser Lys Ser Asp Ser Cys Arg Glu		
50	55	60
Val Thr Val Thr Pro Asn Ala Ala Trp Gly Gly Glu Gly Ser Leu Gly		
65	70	75
Cys Gly Ile Gly Tyr Gly Tyr Leu His Arg Ile Pro Thr Gln Pro Pro		
85	90	95
Ser Tyr His Lys Lys Pro Pro Gly Thr Pro Pro Pro Ser Ala Leu Pro		
100	105	110
Leu Gly Ala Pro Pro Pro Asp Ala Leu Pro Pro Gly Pro Thr Pro Glu		
115	120	125
Asp Ser Pro Ser Leu Glu Thr Gly Ser Arg Gln Ser Asp Tyr Met Glu		
130	135	140
Ala Leu Leu Gln Ala Pro Gly Ser Ser Met Glu Asp Pro Leu Pro Gly		
145	150	155
Pro Gly Ser Pro Ser His Ser Ala Pro Asp Pro Asp Gly Leu Pro His		
165	170	175
Phe Met Glu Thr Pro Leu Gln Pro Pro Pro Pro Val Gln Arg Val Met		
180	185	190
Asp Pro Gly Phe Leu Asp Val Ser Gly Ile Ser Leu Leu Asp Asn Ser		
195	200	205
Asn Ala Ser Val Trp Pro Ser Leu Pro Ser Ser Thr Glu Leu Thr Thr		
210	215	220
Thr Ala Val Ser Thr Ser Gly Pro Glu Asp Ile Cys Ser Ser Ser Ser		
225	230	235
Ser His Glu Arg Gly Gly Glu Ala Thr Trp Ser Gly Ser Glu Phe Glu		
245	250	255
Val Ser Phe Leu Asp Ser Pro Gly Ala Gln Ala Gln Ala Asp His Leu		
260	265	270
Pro Gln Leu Thr Leu Pro Asp Ser Leu Thr Ser Ala Ala Ser Pro Glu		
275	280	285
Asp Gly Leu Ser Ala Glu Leu Leu Glu Ala Gln Ala Glu Glu Glu Pro		
290	295	300
Ala Ser Thr Glu Gly Leu Asp Thr Gly Thr Glu Ala Glu Gly Leu Asp		
305	310	315
Ser Gln Ala Gln Ile Ser Thr Thr Glu Xaa His Pro Gly Leu Xaa Gln		
325	330	335
Gly Pro		
338		

<210> 3814

<211> 294

<212> PRT

<213> Homo sapiens

<400> 3814

Val Phe Trp Gln Val Arg Asn Ala Gly Ser Ser Pro Leu Ser Ala Ala		
1	5	10
Cys Pro Leu Phe Arg Thr Pro Ala Pro Gln Pro Cys Gly Ser Trp Gly		
20	25	30
Arg Cys Cys Ile Pro His Ala Ser Thr Gly Cys Arg Pro Met Ala Glu		
35	40	45
Arg Gly Glu Leu Asp Leu Thr Gly Ala Lys Gln Asn Thr Gly Val Trp		
50	55	60
Leu Val Lys Val Pro Lys Tyr Leu Ser Gln Gln Trp Ala Lys Ala Ser		
65	70	75
Gly Arg Gly Glu Val Gly Lys Leu Arg Ile Ala Lys Thr Gln Gly Arg		
85	90	95
Thr Glu Val Ser Phe Thr Leu Asn Glu Asp Leu Ala Asn Ile His Asp		
100	105	110
Ile Gly Gly Lys Pro Ala Ser Val Ser Ala Pro Arg Glu His Pro Phe		

115	120	125
Val Leu Gln Ser Val Gly Gly Gln Thr Leu Thr Val Phe Thr Glu Ser		
130	135	140
Ser Ser Asp Lys Leu Ser Leu Glu Gly Ile Val Val Gln Arg Ala Glu		
145	150	155
Cys Arg Pro Ala Ala Ser Glu Asn Tyr Met Arg Leu Lys Arg Leu Gln		160
	165	170
Ile Glu Glu Ser Ser Lys Pro Val Arg Leu Ser Gln Gln Leu Asp Lys		175
	180	185
Val Val Thr Thr Asn Tyr Lys Pro Val Ala Asn His Gln Tyr Asn Ile		190
	195	200
Glu Tyr Glu Arg Lys Lys Lys Glu Asp Gly Lys Arg Ala Arg Ala Asp		205
	210	215
Lys Gln His Val Leu Asp Met Leu Phe Ser Ala Phe Glu Lys His Gln		220
225	230	235
Tyr Tyr Asn Leu Lys Asp Leu Val Asp Ile Thr Lys Gln Pro Val Val		240
	245	250
Tyr Leu Lys Glu Ile Leu Lys Glu Ile Gly Val Gln Asn Val Lys Gly		255
	260	265
Ile His Lys Asn Thr Trp Glu Leu Lys Pro Glu Tyr Arg His Tyr Gln		270
	275	280
Gly Glu Glu Lys Ser Asp		285
290	294	

<210> 3815

<211> 131

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(131)

<223> Xaa = any amino acid or nothing

<400> 3815

Asn Ile Gly Asp Trp Glu Asp Ile Gly Lys Ser Pro Glu Arg Ile Ile	
1 5 10 15	
Gln Tyr Tyr Gly Pro Ala Thr Trp Ala Gln Asp Gly Ser Arg Gly Tyr	
20 25 30	
Cys Thr Pro Ile Tyr Met Leu Asn His Ile Ile Arg Leu Gln Ala Val	
35 40 45	
Leu Glu Ile Ile Met Asn Glu Arg Ala Asn Ala Leu Asp Leu Leu Ala	
50 55 60	
Gln Gln Thr Thr Lys Met Arg Asn Ala Asn Tyr Gln Asn Arg Leu Ala	
65 70 75 80	
Leu Asp Tyr Leu Leu Ala His Glu Gly Gly Val Xaa Gly Lys Phe Ser	
85 90 95	
Leu Thr Asn Cys Cys Leu Glu Ile Asp Asp Asn Gly Lys Ala Ile Met	
100 105 110	
Glu Ile Thr Ala Arg Met Arg Lys Leu Ala His Ile Pro Val Gln Thr	
115 120 125	
Trp Glu Arg	
130 131	

<210> 3816

<211> 389

<212> PRT

<213> Homo sapiens

<400> 3816

```

Ser His Trp Gln Arg Arg Asp Arg Arg Cys Val Arg Asn Met Ala Glu
 1          5          10          15
Arg Gly Arg Lys Arg Pro Cys Gly Pro Gly Glu His Gly Gln Arg Ile
          20          25          30
Glu Trp Arg Lys Trp Lys Gln Gln Lys Lys Glu Glu Lys Lys Lys Trp
          35          40          45
Lys Asp Leu Lys Leu Met Lys Lys Leu Glu Arg Gln Arg Ala Gln Glu
          50          55          60
Glu Gln Ala Lys Arg Leu Glu Glu Glu Glu Ala Ala Ala Glu Lys Glu
          65          70          75          80
Asp Arg Gly Arg Pro Tyr Thr Leu Ser Val Ala Leu Pro Gly Ser Ile
          85          90          95
Leu Asp Asn Ala Gln Ser Pro Glu Leu Arg Thr Tyr Leu Ala Gly Gln
          100          105          110
Ile Ala Arg Ala Cys Ala Ile Phe Cys Val Asp Glu Ile Val Val Phe
          115          120          125
Asp Glu Glu Gly Gln Asp Ala Lys Thr Val Glu Gly Glu Phe Thr Gly
          130          135          140
Val Gly Lys Lys Gly Gln Ala Cys Val Gln Leu Ala Arg Ile Leu Gln
          145          150          155          160
Tyr Leu Glu Cys Pro Gln Tyr Leu Arg Lys Ala Phe Phe Pro Lys His
          165          170          175
Gln Asp Leu Gln Phe Ala Gly Leu Leu Asn Pro Leu Asp Ser Pro His
          180          185          190
His Met Arg Gln Asp Glu Glu Ser Glu Phe Arg Glu Gly Val Val Val
          195          200          205
Asp Arg Pro Thr Arg Pro Gly His Gly Ser Phe Val Asn Cys Gly Met
          210          215          220
Lys Lys Glu Val Lys Ile Asp Lys Asn Leu Glu Pro Gly Leu Arg Val
          225          230          235          240
Thr Val Arg Leu Asn Gln Gln Gln His Pro Asp Cys Lys Thr Tyr His
          245          250          255
Gly Lys Val Val Ser Ser Gln Asp Pro Arg Thr Lys Ala Gly Leu Tyr
          260          265          270
Trp Gly Tyr Thr Val Arg Leu Ala Ser Cys Leu Ser Ala Val Phe Ala
          275          280          285
Glu Ala Pro Phe Gln Asp Gly Tyr Asp Leu Thr Ile Gly Thr Ser Glu
          290          295          300
Arg Gly Ser Asp Val Ala Ser Ala Gln Leu Pro Asn Phe Arg His Ala
          305          310          315          320
Leu Val Val Phe Gly Gly Leu Gln Gly Leu Glu Ala Gly Ala Asp Ala
          325          330          335
Asp Pro Asn Leu Glu Val Ala Glu Pro Ser Val Leu Phe Asp Leu Tyr
          340          345          350
Val Asn Thr Cys Pro Gly Gln Gly Ser Arg Thr Ile Arg Thr Glu Glu
          355          360          365
Ala Ile Leu Ile Ser Leu Ala Ala Leu Gln Pro Gly Leu Ile Gln Ala
          370          375          380
Gly Ala Arg His Thr
          385          389

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<210> 3817

<211> 316

<212> PRT

<213> Homo sapiens

<400> 3817

```

Phe Leu Ser Ala Gly Met Ser Asn Phe Thr His Tyr Ala Tyr Leu Leu
 1          5          10          15
Met Ile Glu Ser Leu Met Leu Gly Lys Val Pro Pro His Val Pro Ser

```

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<210> 3818
<211> 191
<212> PRT
<213> Homo sapiens
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5576

130	135	140
Ala Asp Ser Phe Thr Phe Ser Val Glu Gln Ser Asn Leu Val Phe Asn		
145	150	155
Ile Gln Pro Ala Pro Gly Met Val Tyr Asp Tyr Tyr Glu Lys Glu Glu		160
	165	170
Tyr Ala Leu Ala Phe Tyr His Ile Asn Ser Ser Ser Val Ser Glu		175
180	185	190 191

<210> 3819

<211> 494

<212> PRT

<213> Homo sapiens

<400> 3819

Arg	Ile	Pro	Asp	Ser	Ile	Ile	Ser	Arg	Gly	Val	Gln	Gly	Leu	Pro	Arg
1				5					10					15	
Asp	Thr	Ala	Ser	Leu	Ser	Thr	Thr	Pro	Ser	Glu	Ser	Pro	Arg	Ala	Gln
			20					25					30		
Ala	Thr	Ser	Arg	Leu	Ser	Thr	Ala	Ser	Cys	Pro	Thr	Pro	Lys	Val	Gln
		35					40					45			
Ser	Arg	Cys	Ser	Ser	Lys	Glu	Asn	Ile	Leu	Arg	Ala	Ser	His	Ser	Ala
		50				55					60				
Val	Asp	Ile	Thr	Lys	Val	Ala	Arg	Arg	His	Arg	Met	Ser	Pro	Phe	Pro
65					70					75					80
Leu	Thr	Ser	Met	Asp	Lys	Ala	Phe	Ile	Thr	Val	Leu	Glu	Met	Thr	Pro
			85						90					95	
Val	Leu	Gly	Thr	Glu	Ile	Ile	Asn	Tyr	Arg	Asp	Gly	Met	Gly	Arg	Val
			100					105					110		
Leu	Ala	Gln	Asp	Val	Tyr	Ala	Lys	Asp	Asn	Leu	Pro	Pro	Phe	Pro	Ala
		115					120					125			
Ser	Val	Lys	Asp	Gly	Tyr	Ala	Val	Arg	Ala	Ala	Asp	Gly	Pro	Gly	Asp
		130				135					140				
Arg	Phe	Ile	Ile	Gly	Glu	Ser	Gln	Ala	Gly	Glu	Gln	Pro	Thr	Gln	Thr
145					150					155					160
Val	Met	Pro	Gly	Gln	Val	Met	Arg	Val	Thr	Thr	Gly	Ala	Pro	Ile	Pro
				165					170					175	
Cys	Gly	Ala	Asp	Ala	Val	Val	Gln	Val	Glu	Asp	Thr	Glu	Leu	Ile	Arg
			180					185					190		
Glu	Ser	Asp	Asp	Gly	Thr	Glu	Glu	Leu	Glu	Val	Arg	Ile	Leu	Val	Gln
		195					200					205			
Ala	Arg	Pro	Gly	Gln	Asp	Ile	Arg	Pro	Ile	Gly	His	Asp	Ile	Lys	Arg
		210				215					220				
Gly	Glu	Cys	Val	Leu	Ala	Lys	Gly	Thr	His	Met	Gly	Pro	Ser	Glu	Ile
225					230					235					240
Gly	Leu	Leu	Ala	Thr	Val	Gly	Val	Thr	Glu	Val	Glu	Val	Asn	Lys	Phe
				245					250					255	
Pro	Val	Val	Ala	Val	Met	Ser	Thr	Gly	Asn	Glu	Leu	Leu	Asn	Pro	Glu
			260					265					270		
Asp	Asp	Leu	Leu	Pro	Gly	Lys	Ile	Arg	Asp	Ser	Asn	Arg	Ser	Thr	Leu
		275					280					285			
Leu	Ala	Thr	Ile	Gln	Glu	His	Gly	Tyr	Pro	Thr	Ile	Asn	Leu	Gly	Ile
		290				295					300				
Val	Gly	Asp	Asn	Pro	Asp	Asp	Leu	Leu	Asn	Ala	Leu	Asn	Glu	Gly	Ile
305					310					315					320
Ser	Arg	Ala	Asp	Val	Ile	Ile	Thr	Ser	Gly	Gly	Val	Ser	Met	Gly	Glu
				325					330					335	
Lys	Asp	Tyr	Leu	Lys	Gln	Val	Leu	Asp	Ile	Asp	Leu	His	Ala	Gln	Ile
			340					345					350		
His	Phe	Gly	Arg	Val	Phe	Met	Lys	Pro	Gly	Leu	Pro	Thr	Thr	Phe	Ala
		355					360					365			
Thr	Leu	Asp	Ile	Asp	Gly	Val	Arg	Lys	Ile	Ile	Phe	Ala	Leu	Pro	Gly

370	375	380
Asn Pro Val Ser Ala Val Val Thr Cys Asn Leu Phe Val Val Pro Ala		
385	390	395
Leu Arg Lys Met Gln Gly Ile Leu Asp Pro Arg Pro Thr Ile Ile Lys		400
	405	410
Ala Arg Leu Ser Cys Asp Val Lys Leu Asp Pro Arg Pro Glu Tyr His		415
	420	425
Arg Cys Ile Leu Thr Trp His His Gln Glu Pro Leu Pro Trp Ala Gln		430
	435	440
Ser Thr Gly Asn Gln Met Ser Ser Arg Leu Met Ser Met Arg Ser Ala		445
	450	455
Asn Gly Leu Leu Met Leu Pro Pro Lys Thr Glu Gln Tyr Val Glu Leu		460
465	470	475
His Lys Gly Glu Val Val Asp Val Met Val Ile Gly Arg Leu		480
	485	490
		494

<210> 3820

<211> 576

<212> PRT

<213> Homo sapiens

<400> 3820

Pro Gln Glu Pro Ala Leu Lys Ser Glu Phe Ser Gln Val Ala Ser Asn	
1	5
Thr Ile Pro Leu Pro Leu Pro Gln Pro Asn Thr Cys Lys Asp Asn Gly	10
	20
Pro Cys Lys Gln Val Cys Ser Thr Val Gly Gly Ser Ala Ile Cys Ser	25
	30
Cys Phe Pro Gly Tyr Ala Ile Met Ala Asp Gly Val Ser Cys Glu Asp	35
	40
Gln Asp Glu Cys Leu Met Gly Ala His Asp Cys Ser Arg Arg Gln Phe	45
50	55
Cys Val Asn Thr Leu Gly Ser Phe Tyr Cys Val Asn His Thr Val Leu	60
	65
Cys Ala Asp Gly Tyr Ile Leu Asn Ala His Arg Lys Cys Val Asp Ile	70
	75
Asn Glu Cys Val Thr Asp Leu His Thr Cys Ser Arg Gly Glu His Cys	80
	85
Val Asn Thr Leu Gly Ser Phe His Cys Tyr Lys Ala Leu Thr Cys Glu	90
	95
Pro Gly Tyr Ala Leu Lys Asp Gly Glu Cys Glu Asp Val Asp Glu Cys	100
145	105
Ala Met Gly Thr His Thr Cys Gln Pro Gly Phe Leu Cys Gln Asn Thr	110
	115
Lys Gly Ser Phe Tyr Cys Gln Ala Arg Gln Arg Cys Met Asp Gly Phe	120
	125
Leu Gln Asp Pro Glu Gly Asn Cys Val Asp Ile Asn Glu Cys Thr Ser	130
	135
Leu Ser Glu Pro Cys Arg Pro Gly Phe Ser Cys Ile Asn Thr Val Gly	140
210	145
Ser Tyr Thr Cys Gln Arg Asn Pro Leu Ile Cys Ala Arg Gly Tyr His	150
225	155
Ala Ser Asp Asp Gly Thr Lys Cys Val Asp Val Asn Glu Cys Glu Thr	160
	165
Gly Val His Arg Cys Gly Glu Gly Gln Val Cys His Asn Leu Pro Gly	170
	175
Ser Tyr Arg Cys Asp Cys Lys Ala Gly Phe Gln Arg Asp Ala Phe Gly	180
	185
Arg Gly Cys Ile Asp Val Asn Glu Cys Trp Ala Ser Pro Gly Arg Leu	190
290	195
Cys Gln His Thr Cys Glu Asn Thr Leu Gly Ser Tyr Arg Cys Ser Cys	200
	205
	210
	215
	220
	225
	230
	235
	240
	245
	250
	255
	260
	265
	270
	275
	280
	285
	290
	295
	300

305		310		315		320
Ala Ser Gly Phe Leu Leu Ala Ala Asp Gly Lys Arg Cys Glu Asp Val						
	325		330		335	
Asn Glu Cys Glu Ala Gln Arg Cys Ser Gln Glu Cys Ala Asn Ile Tyr						
	340		345		350	
Gly Ser Tyr Gln Cys Tyr Cys Arg Gln Gly Tyr Gln Leu Ala Glu Asp						
	355		360		365	
Gly His Thr Cys Thr Asp Ile Asp Glu Cys Ala Gln Gly Ala Gly Ile						
	370		375		380	
Leu Cys Thr Phe Arg Cys Leu Asn Val Pro Gly Ser Tyr Gln Cys Ala						
385	390		395		400	
Cys Pro Glu Gln Gly Tyr Thr Met Thr Ala Asn Gly Arg Ser Cys Lys						
	405		410		415	
Asp Val Asp Glu Cys Ala Leu Gly Thr His Asn Cys Ser Glu Ala Glu						
	420		425		430	
Thr Cys His Asn Ile Gln Gly Ser Phe Arg Cys Leu Arg Phe Glu Cys						
	435		440		445	
Pro Pro Asn Tyr Val Gln Val Ser Lys Thr Lys Cys Glu Arg Thr Thr						
	450		455		460	
Cys His Asp Phe Leu Glu Cys Gln Asn Ser Pro Ala Arg Ile Thr His						
465	470		475		480	
Tyr Gln Leu Asn Phe Gln Thr Gly Leu Leu Val Pro Ala His Ile Phe						
	485		490		495	
Arg Ile Gly Pro Ala Pro Ala Phe Thr Gly Asp Thr Ile Ala Leu Asn						
	500		505		510	
Ile Ile Lys Gly Asn Glu Glu Gly Tyr Phe Gly Thr Arg Arg Leu Asn						
	515		520		525	
Ala Tyr Thr Gly Val Val Tyr Leu Gln Arg Ala Val Leu Glu Pro Arg						
	530		535		540	
Asp Phe Ala Leu Asp Val Glu Met Lys Leu Trp Arg Gln Gly Ser Val						
545	550		555		560	
Thr Thr Phe Leu Ala Lys Met His Ile Phe Phe Thr Thr Phe Ala Leu						
	565		570		575 576	

<210> 3821
 <211> 576
 <212> PRT
 <213> Homo sapiens

<400> 3821

Pro Gln Glu Pro Ala Leu Lys Ser Glu Phe Ser Gln Val Ala Ser Asn														
1	5		10		15									
Thr Ile Pro Leu Pro Leu Pro Gln Pro Asn Thr Cys Lys Asp Asn Gly														
	20		25		30									
Pro Cys Lys Gln Val Cys Ser Thr Val Gly Gly Ser Ala Ile Cys Ser														
	35		40		45									
Cys Phe Pro Gly Tyr Ala Ile Met Ala Asp Gly Val Ser Cys Glu Asp														
	50		55		60									
Gln Asp Glu Cys Leu Met Gly Ala His Asp Cys Ser Arg Arg Gln Phe														
	65		70		75									
Cys Val Asn Thr Leu Gly Ser Phe Tyr Cys Val Asn His Thr Val Leu														
	85		90		95									
Cys Ala Asp Gly Tyr Ile Leu Asn Ala His Arg Lys Cys Val Asp Ile														
	100		105		110									
Asn Glu Cys Val Thr Asp Leu His Thr Cys Ser Arg Gly Glu His Cys														
	115		120		125									
Val Asn Thr Leu Gly Ser Phe His Cys Tyr Lys Ala Leu Thr Cys Glu														
	130		135		140									
Pro Gly Tyr Ala Leu Lys Asp Gly Glu Cys Glu Asp Val Asp Glu Cys														

145		150		155		160
Ala Met Gly Thr	His Thr Cys Gln Pro Gly Phe Leu Cys Gln Asn Thr					
	165		170		175	
Lys Gly Ser Phe Tyr Cys Gln Ala Arg Gln Arg Cys Met Asp Gly Phe						
	180		185		190	
Leu Gln Asp Pro Glu Gly Asn Cys Val Asp Ile Asn Glu Cys Thr Ser						
	195		200		205	
Leu Ser Glu Pro Cys Arg Pro Gly Phe Ser Cys Ile Asn Thr Val Gly						
	210		215		220	
Ser Tyr Thr Cys Gln Arg Asn Pro Leu Ile Cys Ala Arg Gly Tyr His						
	225		230		235	
Ala Ser Asp Asp Gly Thr Lys Cys Val Asp Val Asn Glu Cys Glu Thr						
	245		250		255	
Gly Val His Arg Cys Gly Glu Gly Gln Val Cys His Asn Leu Pro Gly						
	260		265		270	
Ser Tyr Arg Cys Asp Cys Lys Ala Gly Phe Gln Arg Asp Ala Phe Gly						
	275		280		285	
Arg Gly Cys Ile Asp Val Asn Glu Cys Trp Ala Ser Pro Gly Arg Leu						
	290		295		300	
Cys Gln His Thr Cys Glu Asn Thr Leu Gly Ser Tyr Arg Cys Ser Cys						
	305		310		315	
Ala Ser Gly Phe Leu Leu Ala Ala Asp Gly Lys Arg Cys Glu Asp Val						
	325		330		335	
Asn Glu Cys Glu Ala Gln Arg Cys Ser Gln Glu Cys Ala Asn Ile Tyr						
	340		345		350	
Gly Ser Tyr Gln Cys Tyr Cys Arg Gln Gly Tyr Gln Leu Ala Glu Asp						
	355		360		365	
Gly His Thr Cys Thr Asp Ile Asp Glu Cys Ala Gln Gly Ala Gly Ile						
	370		375		380	
Leu Cys Thr Phe Arg Cys Leu Asn Val Pro Gly Ser Tyr Gln Cys Ala						
	385		390		395	
Cys Pro Glu Gln Gly Tyr Thr Met Thr Ala Asn Gly Arg Ser Cys Lys						
	405		410		415	
Asp Val Asp Glu Cys Ala Leu Gly Thr His Asn Cys Ser Glu Ala Glu						
	420		425		430	
Thr Cys His Asn Ile Gln Gly Ser Phe Arg Cys Leu Arg Phe Glu Cys						
	435		440		445	
Pro Pro Asn Tyr Val Gln Val Ser Lys Thr Lys Cys Glu Arg Thr Thr						
	450		455		460	
Cys His Asp Phe Leu Glu Cys Gln Asn Ser Pro Ala Arg Ile Thr His						
	465		470		475	
Tyr Gln Leu Asn Phe Gln Thr Gly Leu Leu Val Pro Ala His Ile Phe						
	485		490		495	
Arg Ile Gly Pro Ala Pro Ala Phe Thr Gly Asp Thr Ile Ala Leu Asn						
	500		505		510	
Ile Ile Lys Gly Asn Glu Glu Gly Tyr Phe Gly Thr Arg Arg Leu Asn						
	515		520		525	
Ala Tyr Thr Gly Val Val Tyr Leu Gln Arg Ala Val Leu Glu Pro Arg						
	530		535		540	
Asp Phe Ala Leu Asp Val Glu Met Lys Leu Trp Arg Gln Gly Ser Val						
	545		550		555	
Thr Thr Phe Leu Ala Lys Met His Ile Phe Phe Thr Thr Phe Ala Leu						
	565		570		575	576

<210> 3822
 <211> 321
 <212> PRT
 <213> Homo sapiens

<400> 3822

Met Ala Ala Ala Thr Arg Gly Cys Arg Pro Trp Gly Ser Leu Leu Gly
 1 5 10 15
 Leu Leu Gly Leu Val Ser Ala Ala Ala Ala Trp Asp Leu Ala Ser
 20 25 30
 Leu Arg Cys Thr Leu Gly Ala Phe Cys Glu Cys Asp Phe Arg Pro Asp
 35 40 45
 Leu Pro Gly Leu Glu Cys Asp Leu Ala Gln His Leu Ala Gly Gln His
 50 55 60
 Leu Ala Lys Ala Leu Val Val Lys Ala Leu Lys Ala Phe Val Arg Asp
 65 70 75 80
 Pro Ala Pro Thr Lys Pro Leu Val Leu Ser Leu His Gly Trp Thr Gly
 85 90 95
 Thr Gly Lys Ser Tyr Val Ser Ser Leu Leu Ala His Tyr Leu Phe Gln
 100 105 110
 Gly Gly Leu Arg Ser Pro Arg Val His His Phe Ser Pro Val Leu His
 115 120 125
 Phe Pro His Pro Ser His Ile Glu Arg Tyr Lys Lys Asp Leu Lys Ser
 130 135 140
 Trp Val Gln Gly Asn Leu Thr Ala Cys Gly Arg Ser Leu Phe Leu Phe
 145 150 155 160
 Asp Glu Met Asp Lys Met Pro Pro Gly Leu Met Glu Val Leu Arg Pro
 165 170 175
 Phe Leu Gly Ser Ser Trp Val Val Tyr Gly Thr Asn Tyr Arg Lys Ala
 180 185 190
 Ile Phe Ile Phe Ile Ser Asn Thr Gly Gly Glu Gln Ile Asn Gln Val
 195 200 205
 Ala Leu Glu Ala Trp Arg Ser Arg Arg Asp Arg Glu Glu Ile Leu Leu
 210 215 220
 Gln Glu Leu Glu Pro Val Ile Ser Arg Ala Val Leu Asp Asn Pro His
 225 230 235 240
 His Gly Phe Ser Asn Ser Gly Ile Met Glu Glu Arg Leu Leu Asp Ala
 245 250 255
 Val Val Pro Phe Leu Pro Leu Gln Arg His His Val Arg His Cys Val
 260 265 270
 Leu Asn Glu Leu Ala Gln Leu Gly Leu Glu Pro Arg Asp Glu Val Val
 275 280 285
 Gln Ala Val Leu Asp Ser Thr Thr Phe Phe Pro Glu Asp Glu Gln Leu
 290 295 300
 Phe Ser Ser Asn Gly Cys Lys Thr Val Ala Ser Arg Ile Ala Phe Phe
 305 310 315 320
 Leu
 321

<210> 3823

<211> 1058

<212> PRT

<213> Homo sapiens

<400> 3823

Tyr Gly Cys Glu Lys Thr Thr Glu Gly Arg Ile Pro Leu Lys Asn Ile
 1 5 10 15
 Tyr Arg Leu Phe Ser Ala Asp Arg Lys Arg Val Glu Thr Ala Leu Glu
 20 25 30
 Ala Cys Ser Leu Pro Ser Ser Arg Asn Asp Ser Ile Pro Gln Glu Asp
 35 40 45
 Phe Thr Pro Glu Val Tyr Arg Val Phe Leu Asn Asn Leu Cys Pro Arg
 50 55 60
 Pro Glu Ile Asp Asn Ile Phe Ser Glu Phe Gly Ala Lys Ser Lys Pro
 65 70 75 80
 Tyr Leu Thr Val Asp Gln Met Met Asp Phe Ile Asn Leu Lys Gln Arg

5582

595	600	605
Ile Arg Pro Gly Tyr His Tyr	Ile Cys Leu Arg Asn Glu Arg Asn Gln	
610	615	620
Pro Leu Thr Leu Pro Ala Val Phe Val Tyr Ile Glu Val Lys Asp Tyr		
625	630	635
Val Pro Asp Thr Tyr Ala Asp Val Ile Glu Ala Leu Ser Asn Pro Ile		
645	650	655
Arg Tyr Val Asn Leu Met Glu Gln Arg Ala Lys Gln Leu Ala Ala Leu		
660	665	670
Thr Leu Glu Asp Glu Glu Glu Val Lys Lys Glu Ala Asp Pro Gly Glu		
675	680	685
Thr Pro Ser Glu Ala Pro Ser Glu Ala Arg Thr Thr Pro Ala Glu Asn		
690	695	700
Gly Val Asn His Thr Thr Thr Leu Thr Pro Lys Pro Pro Ser Gln Ala		
705	710	715
Leu His Ser Gln Pro Ala Pro Gly Ser Val Lys Ala Pro Ala Lys Thr		
725	730	735
Glu Asp Leu Ile Gln Ser Val Leu Thr Glu Val Glu Ala Gln Thr Ile		
740	745	750
Glu Glu Leu Lys Gln Gln Lys Ser Phe Val Lys Leu Gln Lys Lys His		
755	760	765
Tyr Lys Glu Met Lys Asp Leu Val Lys Arg His His Lys Lys Thr Thr		
770	775	780
Asp Leu Ile Lys Glu His Thr Thr Lys Tyr Asn Glu Ile Gln Asn Asp		
785	790	795
Tyr Leu Arg Arg Arg Ala Ala Leu Glu Lys Ser Ala Lys Lys Asp Ser		
805	810	815
Lys Lys Lys Ser Glu Pro Ser Ser Pro Asp His Gly Ser Ser Thr Ile		
820	825	830
Glu Gln Asp Leu Ala Ala Leu Asp Ala Glu Met Thr Gln Lys Leu Ile		
835	840	845
Asp Leu Lys Asp Lys Gln Gln Gln Gln Leu Leu Asn Leu Arg Gln Glu		
850	855	860
Gln Tyr Tyr Ser Glu Lys Tyr Gln Lys Arg Glu His Ile Lys Leu Leu		
865	870	875
Ile Gln Lys Leu Thr Asp Val Ala Glu Glu Cys Gln Asn Asn Gln Leu		
885	890	895
Lys Lys Leu Lys Glu Ile Cys Glu Lys Glu Lys Lys Glu Leu Lys Lys		
900	905	910
Lys Met Asp Lys Lys Arg Gln Glu Lys Ile Thr Glu Ala Lys Ser Lys		
915	920	925
Asp Lys Ser Gln Met Glu Glu Lys Thr Glu Met Ile Arg Ser Tyr		
930	935	940
Ile Gln Glu Val Val Gln Tyr Ile Lys Arg Leu Glu Glu Ala Gln Ser		
945	950	955
Lys Arg Gln Glu Lys Leu Val Glu Lys His Lys Glu Ile Arg Gln Gln		
965	970	975
Ile Leu Asp Glu Lys Pro Lys Leu Gln Val Glu Leu Glu Gln Glu Tyr		
980	985	990
Gln Asp Lys Phe Lys Arg Leu Pro Leu Glu Ile Leu Glu Phe Val Gln		
995	1000	1005
Glu Ala Met Lys Gly Lys Ile Ser Glu Asp Ser Asn His Gly Ser Ala		
1010	1015	1020
Pro Leu Ser Leu Ser Ser Asp Pro Gly Lys Val Asn His Lys Thr Pro		
1025	1030	1035
Ser Ser Glu Glu Leu Gly Gly Asp Ile Pro Gly Lys Glu Phe Asp Thr		
1045	1050	1055
Pro Leu		
1058		

<210> 3824

<211> 142

<212> PRT

<213> Homo sapiens

<400> 3824

```

Ile Leu His Trp Phe Val His Arg Trp Ser Gly Arg Asn Asn Arg Glu
 1           5           10           15
Lys Ile Gly Val His Val Gly Phe Glu Glu Ile Leu Asn Met Glu Pro
          20           25           30
Tyr Cys Cys Arg Glu Thr Leu Lys Ser Leu Arg Pro Glu Cys Phe Ile
          35           40           45
Tyr Asp Leu Ser Ala Val Val Met His His Gly Lys Gly Phe Gly Ser
          50           55           60
Gly His Tyr Thr Ala Tyr Cys Tyr Asn Ser Glu Gly Gly Phe Trp Val
          65           70           75           80
His Cys Asn Asp Ser Lys Leu Ser Met Cys Thr Met Asp Glu Val Cys
          85           90           95
Lys Ala Gln Ala Tyr Ile Leu Phe Tyr Thr Gln Arg Val Thr Glu Asn
          100          105          110
Gly His Ser Lys Leu Leu Pro Pro Glu Leu Leu Leu Gly Ser Gln His
          115          120          125
Pro Asn Glu Asp Ala Asp Thr Ser Ser Asn Glu Ile Leu Ser
          130          135          140          142

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<210> 3825

<211> 120

<212> PRT

<213> Homo sapiens

<400> 3825

```

Gly Ile Arg Ala Lys Phe Pro Asn Lys Ile Pro Val Val Val Glu Arg
 1           5           10           15
Tyr Pro Arg Glu Thr Phe Leu Pro Pro Leu Asp Lys Thr Lys Phe Leu
          20           25           30
Val Pro Gln Glu Leu Thr Met Thr Gln Phe Leu Ser Ile Ile Arg Ser
          35           40           45
Arg Met Val Leu Arg Ala Thr Glu Ala Phe Tyr Leu Leu Val Asn Asn
          50           55           60
Lys Ser Leu Val Ser Met Ser Ala Thr Met Ala Glu Ile Tyr Arg Asp
          65           70           75           80
Tyr Lys Asp Glu Asp Gly Phe Val Tyr Met Thr Tyr Ala Ser Gln Glu
          85           90           95
Thr Phe Gly Cys Leu Glu Ser Ala Ala Pro Arg Asp Gly Ser Ser Leu
          100          105          110
Glu Asp Arg Pro Leu His Pro Leu
          115          120

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<210> 3826

<211> 412

<212> PRT

<213> Homo sapiens

<400> 3826

```

Pro Glu Lys Lys Phe Glu Arg Glu Cys Arg Glu Ala Glu Lys Ala Gln
 1           5           10           15
Gln Ser Tyr Glu Arg Leu Asp Asn Asp Thr Asn Ala Thr Lys Ala Asp
          20           25           30
Val Glu Lys Ala Lys Gln Gln Leu Asn Leu Arg Thr His Met Ala Asp

```


35 40 45
Glu Asn Lys Asn Glu Tyr Ala Ala Gln Leu Gln Asn Phe Asn Gly Glu
50 55 60
Gln His Lys His Phe Tyr Val Val Ile Pro Gln Ile Tyr Lys Gln Leu
65 70 75 80
Gln Glu Met Asp Glu Arg Arg Thr Ile Lys Leu Ser Glu Cys Tyr Arg
85 90 95
Gly Phe Ala Asp Ser Glu Arg Lys Val Ile Pro Ile Ile Ser Lys Cys
100 105 110
Leu Glu Gly Met Ile Leu Ala Ala Lys Ser Val Asp Glu Arg Arg Asp
115 120 125
Ser Gln Met Val Val Asp Ser Phe Lys Ser Gly Phe Glu Pro Pro Gly
130 135 140
Asp Phe Pro Phe Glu Asp Tyr Ser Gln His Ile Tyr Arg Thr Ile Ser
145 150 155 160
Asp Gly Thr Ile Ser Ala Ser Lys Gln Glu Ser Gly Lys Met Asp Ala
165 170 175
Lys Thr Thr Val Gly Lys Ala Lys Gly Lys Leu Trp Leu Phe Gly Lys
180 185 190
Lys Pro Lys Gly Pro Ala Leu Glu Asp Phe Ser His Leu Pro Pro Glu
195 200 205
Gln Arg Arg Lys Lys Leu Gln Gln Arg Ile Asp Glu Leu Asn Arg Glu
210 215 220
Leu Gln Lys Glu Ser Asp Gln Lys Asp Ala Leu Asn Lys Met Lys Asp
225 230 235 240
Val Tyr Glu Lys Asn Pro Gln Met Gly Asp Pro Gly Ser Leu Gln Pro
245 250 255
Lys Leu Ala Glu Thr Met Asn Asn Ile Asp Arg Leu Arg Met Glu Ile
260 265 270
His Lys Asn Glu Ala Trp Leu Ser Glu Val Glu Gly Lys Thr Gly Gly
275 280 285
Arg Gly Asp Arg Arg His Ser Ser Asp Ile Asn His Leu Val Thr Gln
290 295 300
Gly Arg Glu Ser Pro Glu Gly Ser Tyr Thr Asp Asp Ala Asn Gln Glu
305 310 315 320
Val Arg Gly Pro Pro Gln Gln His Gly His His Asn Glu Phe Asp Asp
325 330 335
Glu Phe Glu Asp Asp Asp Pro Leu Pro Ala Ile Gly His Cys Lys Ala
340 345 350
Ile Tyr Pro Phe Asp Gly His Asn Glu Gly Thr Leu Ala Met Lys Glu
355 360 365
Gly Glu Val Leu Tyr Ile Ile Glu Glu Asp Lys Gly Asp Gly Trp Thr
370 375 380
Arg Ala Arg Arg Gln Asn Gly Glu Glu Gly Tyr Val Pro Thr Ser Tyr
385 390 395 400
Ile Asp Val Thr Leu Glu Lys Asn Ser Lys Gly Ser
405 410 412

<210> 3827

<211> 527

<212> PRT

<213> Homo sapiens

<400> 3827

Ile Asn Pro Val Ser Ser Ala Val Asn Gly Glu Ala His Ser Ser His
1 5 10 15
Glu Thr Arg Gly Gln Asn Ser Asn Ala Leu Pro Ser Val Leu Leu Glu
20 25 30
Leu Leu Ser Gln Ser Cys Leu Ile Pro Ala Met Ser Ser Tyr Leu Arg
35 40 45
Asn Asp Ser Val Leu Asp Met Ala Arg His Val Pro Leu Tyr Arg Ala

50	55	60
Leu Leu Glu Leu Leu Arg Ala Ile Ala Ser Cys Ala Ala Met Val Pro		
65	70	75
Leu Leu Leu Pro Leu Ser Thr Glu Asn Gly Glu Glu Glu Glu Gln		80
	85	90
Ser Glu Cys Gln Thr Ser Val Gly Thr Leu Leu Ala Lys Met Lys Thr		95
	100	105
Cys Val Asp Thr Tyr Thr Asn Arg Leu Arg Ser Lys Arg Glu Asn Val		110
	115	120
Lys Thr Gly Val Lys Pro Asp Ala Ser Asp Gln Glu Pro Glu Gly Leu		125
	130	135
Thr Leu Leu Val Pro Asp Ile Gln Lys Thr Ala Glu Ile Val Tyr Ala		140
145	150	155
Ala Thr Thr Ser Leu Arg Gln Ala Asn Gln Glu Lys Lys Leu Gly Glu		160
	165	170
Tyr Ser Lys Lys Ala Ala Met Lys Pro Lys Pro Leu Ser Val Leu Lys		175
	180	185
Ser Leu Glu Glu Lys Tyr Val Ala Val Met Lys Lys Leu Gln Phe Asp		190
	195	200
Thr Phe Glu Met Val Ser Glu Asp Glu Asp Gly Lys Leu Gly Phe Lys		205
	210	215
Val Asn Tyr His Tyr Met Ser Gln Val Lys Asn Ala Asn Asp Ala Asn		220
225	230	235
Ser Ala Ala Arg Ala Arg Arg Leu Ala Gln Glu Ala Val Thr Leu Ser		240
	245	250
Thr Ser Leu Pro Leu Ser Ser Ser Ser Ser Val Phe Val Arg Cys Asp		255
	260	265
Glu Glu Arg Leu Asp Ile Met Lys Val Leu Ile Thr Gly Pro Ala Asp		270
	275	280
Thr Pro Tyr Ala Asn Gly Cys Phe Glu Phe Asp Val Tyr Phe Pro Gln		285
	290	295
Asp Tyr Pro Ser Ser Pro Pro Leu Val Asn Leu Glu Thr Thr Gly Gly		300
305	310	315
His Ser Val Arg Phe Asn Pro Asn Leu Tyr Asn Asp Gly Lys Val Cys		320
	325	330
Leu Ser Ile Leu Asn Thr Trp His Gly Arg Pro Glu Glu Lys Trp Asn		335
	340	345
Pro Gln Thr Ser Ser Phe Leu Gln Val Leu Val Ser Val Gln Ser Leu		350
	355	360
Ile Leu Val Ala Glu Pro Tyr Phe Asn Glu Pro Gly Tyr Glu Arg Ser		365
	370	375
Arg Gly Thr Pro Ser Gly Thr Gln Ser Ser Arg Glu Tyr Asp Gly Asn		380
385	390	395
Ile Arg Gln Ala Thr Val Lys Trp Ala Met Leu Glu Gln Ile Arg Asn		400
	405	410
Pro Ser Pro Cys Phe Lys Glu Val Ile His Lys His Phe Tyr Leu Lys		415
	420	425
Arg Val Glu Ile Met Ala Gln Cys Glu Glu Trp Ile Ala Asp Ile Gln		430
	435	440
Gln Tyr Ser Ser Asp Lys Arg Val Gly Arg Thr Met Ser His His Ala		445
	450	455
Ala Ala Leu Lys Arg His Thr Ala Gln Leu Arg Glu Glu Leu Leu Lys		460
465	470	475
Leu Pro Cys Pro Glu Gly Leu Asp Pro Asp Thr Asp Ala Pro Glu		480
	485	490
Val Cys Arg Ala Thr Thr Gly Ala Glu Glu Thr Leu Met His Asp Gln		495
	500	505
Val Lys Pro Ser Ser Ser Lys Glu Leu Pro Ser Asp Phe Gln Leu		510
	515	520
		525
		527

<210> 3828

<211> 190

<212> PRT

<213> Homo sapiens

<400> 3828

```

Pro Arg Val Pro Ala Thr Leu Val Ser Leu Asp Pro Trp His Cys Phe
 1          5          10          15
Pro Thr Ala Gly Arg Leu Ala Gly Ser Thr Trp Val Pro Pro Ala Cys
          20          25          30
Thr Leu Gln Leu Gly Pro Ser Ser Glu His Glu Leu Asp Asn His Arg
          35          40          45
Ala Pro Leu Leu Ser Leu Pro Ser Gln Glu Ser Leu Ser Phe Thr Pro
          50          55          60
Trp Tyr Leu Val Ala Cys Lys Pro Leu Phe His Ile Phe Cys Pro Leu
 65          70          75          80
Phe Ala Cys Phe Met Gln Glu Gly Lys Val Gln Tyr Leu Phe Leu His
          85          90          95
Leu Ser His Met Arg Leu Leu Asn Tyr Tyr Phe Phe Pro Phe Leu Ala
          100          105          110
Pro Glu Ser Leu Met Gln Ala Leu Glu Asp Leu Asp Tyr Leu Ala Ala
          115          120          125
Leu Asp Asn Asp Gly Asn Leu Ser Glu Phe Gly Ile Ile Met Ser Glu
 130          135          140
Phe Pro Leu Asp Pro Gln Leu Ser Lys Ser Ile Leu Ala Ser Cys Glu
 145          150          155          160
Phe Asp Cys Val Asp Glu Val Leu Thr Ile Ala Ala Met Val Thr Gly
          165          170          175
Ile Leu Asn Asp Tyr Ser Phe Ser Phe Phe Ala Asn Leu His
          180          185          190

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<210> 3829

<211> 161

<212> PRT

<213> Homo sapiens

<400> 3829

```

Val Asp His Thr Pro Val Leu Ser Lys Pro Gln Cys Phe Ser Ser Val
 1          5          10          15
Lys Trp Gly Ala Thr Leu Ser Ala Arg Ser Gln Lys Thr Ser Gly Ile
          20          25          30
Gly Arg Leu Met Val His Val Ile Glu Ala Thr Glu Leu Lys Ala Cys
          35          40          45
Lys Pro Asn Gly Lys Ser Asn Pro Tyr Cys Glu Ile Ser Met Gly Ser
          50          55          60
Gln Ser Tyr Thr Thr Arg Thr Ile Gln Asp Thr Leu Asn Pro Lys Trp
 65          70          75          80
Asn Phe Asn Cys Gln Phe Phe Ile Lys Asp Leu Tyr Gln Asp Val Leu
          85          90          95
Cys Leu Thr Leu Phe Asp Arg Asp Gln Phe Ser Pro Asp Asp Phe Leu
          100          105          110
Gly Arg Thr Glu Ile Pro Val Ala Lys Ile Arg Thr Glu Gln Glu Ser
          115          120          125
Lys Gly Pro Met Thr Arg Arg Leu Leu Leu His Glu Val Pro Thr Gly
 130          135          140
Glu Val Trp Val Arg Phe Asp Leu Gln Leu Phe Glu Gln Lys Thr Leu
 145          150          155          160
Leu
161

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<210> 3830
 <211> 447
 <212> PRT
 <213> Homo sapiens

<400> 3830
 Arg Lys Met Met Glu Glu Ser Gly Ile Glu Thr Thr Pro Pro Gly Thr
 1 5 10 15
 Pro Pro Pro Asn Pro Ala Gly Leu Ala Ala Thr Ala Met Ser Ser Thr
 20 25 30
 Pro Val Pro Leu Ala Ala Thr Ser Ser Phe Ser Ser Pro Asn Val Ser
 35 40 45
 Ser Met Glu Ser Phe Pro Pro Leu Ala Tyr Ser Thr Pro Gln Pro Pro
 50 55 60
 Leu Pro Pro Val Arg Pro Ser Ala Pro Leu Pro Phe Val Pro Pro Pro
 65 70 75 80
 Ala Val Pro Ser Val Pro Pro Leu Val Thr Ser Met Pro Pro Pro Val
 85 90 95
 Ser Pro Ser Thr Ala Ala Ala Phe Gly Asn Pro Pro Val Ser His Phe
 100 105 110
 Pro Pro Ser Thr Ser Ala Pro Asn Thr Leu Leu Pro Ala Pro Pro Ser
 115 120 125
 Gly Pro Pro Ile Ser Gly Phe Ser Val Gly Ser Thr Tyr Asp Ile Thr
 130 135 140
 Arg Gly His Ala Gly Arg Ala Pro Gln Thr Pro Leu Met Pro Ser Phe
 145 150 155 160
 Ser Ala Pro Ser Gly Thr Gly Leu Leu Pro Thr Pro Ile Thr Gln Gln
 165 170 175
 Ala Ser Leu Thr Ser Leu Ala Gln Gly Thr Gly Thr Thr Ser Ala Ile
 180 185 190
 Thr Phe Pro Glu Glu Gln Glu Asp Pro Arg Ile Thr Arg Gly Gln Asp
 195 200 205
 Glu Ala Ser Ala Gly Gly Ile Trp Gly Phe Ile Lys Gly Val Ala Gly
 210 215 220
 Asn Pro Met Val Lys Ser Val Leu Asp Lys Thr Lys His Ser Val Glu
 225 230 235 240
 Ser Met Ile Thr Thr Leu Asp Pro Gly Met Ala Pro Tyr Ile Lys Ser
 245 250 255
 Gly Gly Glu Leu Asp Ile Val Val Thr Ser Asn Lys Glu Val Lys Val
 260 265 270
 Ala Ala Val Arg Asp Ala Phe Gln Glu Val Phe Gly Leu Ala Val Val
 275 280 285
 Val Gly Glu Ala Gly Gln Ser Asn Ile Ala Pro Gln Pro Val Gly Tyr
 290 295 300
 Ala Ala Gly Leu Lys Gly Ala Gln Glu Arg Ile Asp Ser Leu Arg Arg
 305 310 315 320
 Thr Gly Val Ile His Glu Lys Gln Thr Ala Val Ser Val Glu Asn Phe
 325 330 335
 Ile Ala Glu Leu Leu Pro Asp Lys Trp Phe Asp Ile Gly Cys Leu Val
 340 345 350
 Val Glu Asp Pro Val His Gly Ile His Leu Glu Thr Phe Thr Gln Ala
 355 360 365
 Thr Pro Val Pro Leu Glu Phe Val Gln Gln Ala Gln Ser Leu Thr Pro
 370 375 380
 Gln Asp Tyr Asn Leu Arg Trp Ser Gly Leu Leu Val Thr Val Gly Glu
 385 390 395 400
 Val Leu Glu Lys Ser Leu Leu Asn Val Ser Arg Thr Asp Trp His Met
 405 410 415
 Ala Phe Thr Gly Met Ser Arg Arg Gln Met Ile Tyr Ser Ala Ala Arg
 420 425 430
 Ala Ile Ala Gly Met Tyr Lys Gln Arg Leu Pro Pro Arg Thr Val
 435 440 445 447

<210> 3831
 <211> 223
 <212> PRT
 <213> Homo sapiens

<400> 3831
 Phe Trp Thr Arg Ser Ala Trp His Glu Gly Leu Gln Gln Met Lys Ala
 1 5 10 15
 Asn Asp Pro Ser Leu Gln Glu Val Asn Leu Tyr Asn Ile Lys Asn Ile
 20 25 30
 Pro Ile Pro Thr Leu Arg Glu Phe Ala Lys Ala Leu Glu Thr Asn Thr
 35 40 45
 His Val Lys Lys Phe Ser Leu Ala Ala Thr Arg Ser Asn Asp Pro Val
 50 55 60
 Ala Ile Ala Phe Ala Asp Met Leu Lys Val Asn Thr Thr Leu Thr Ser
 65 70 75 80
 Leu Asn Ile Glu Ser His Phe Ile Thr Gly Thr Gly Ile Leu Ala Leu
 85 90 95
 Val Glu Ala Leu Lys Glu Asn Asp Thr Leu Thr Glu Ile Lys Ile Asp
 100 105 110
 Asn Gln Arg Gln Gln Leu Gly Thr Ala Val Glu Met Glu Ile Ala Gln
 115 120 125
 Met Leu Glu Glu Asn Ser Arg Ile Leu Lys Phe Gly Tyr Gln Phe Thr
 130 135 140
 Lys Gln Gly Pro Arg Thr Arg Val Ala Ala Ala Ile Thr Lys Asn Asn
 145 150 155 160
 Asp Leu Ala Trp Gln Lys Asp Thr Gln Glu Gln Thr Ser Ile Trp Gln
 165 170 175
 Val Val Ser Gln Ser Ile Ala Gly Phe Asn Pro Gln Phe Glu Val Gln
 180 185 190
 Gly Gln Asn Ala Arg Ser Trp Met Glu Glu Leu Gly Lys Ala Phe His
 195 200 205
 Gln Phe Val Arg Arg Glu Leu Lys Gln Thr Glu Gly Lys Leu Pro
 210 215 220 223

<210> 3832
 <211> 206
 <212> PRT
 <213> Homo sapiens

<400> 3832
 Glu Pro Trp Val Pro Met Asp Val Ala Glu Ser Pro Glu Arg Asp Pro
 1 5 10 15
 His Ser Pro Glu Asp Glu Glu Gln Pro Gln Gly Leu Ser Asp Asp Asp
 20 25 30
 Ile Leu Arg Asp Ser Gly Ser Asp Gln Asp Leu Asp Gly Ala Gly Val
 35 40 45
 Arg Ala Ser Asp Leu Glu Asp Glu Glu Ser Ala Ala Arg Gly Pro Ser
 50 55 60
 Gln Glu Glu Glu Asp Asn His Ser Asp Glu Glu Asp Arg Ala Ser Glu
 65 70 75 80
 Pro Lys Ser Gln Asp Gln Asp Ser Glu Val Asn Glu Leu Ser Arg Gly
 85 90 95
 Pro Thr Ser Ser Pro Cys Glu Glu Glu Gly Asp Glu Gly Glu Glu Asp
 100 105 110
 Arg Thr Ser Asp Leu Arg Asp Glu Ala Ser Ser Val Thr Arg Glu Leu
 115 120 125
 Asp Glu His Glu Leu Asp Tyr Asp Glu Glu Val Pro Glu Glu Pro Ala

130	135	140
Pro Ala Val Gln Glu Asp	Glu Ala Glu Lys Ala Gly	Ala Glu Asp Asp
145	150	155
Glu Glu Lys Gly Glu Gly Thr Pro Arg	Glu Glu Gly Lys Ala Gly Val	
	165	170
Gln Ser Val Gly Glu Lys Glu Ser Leu	Glu Ala Ala Lys Glu Lys Lys	
	180	185
Lys Glu Asp Asp Asp Gly Glu Ile Asp	Asp Glu Glu Met Tyr	
195	200	205 206

<210> 3833

<211> 518

<212> PRT

<213> Homo sapiens

<400> 3833

Ser Gln Pro Pro His Phe Thr Gln Lys Met Asn Glu Asn Lys Asp Thr	
1	5 10 15
Asp Ser Lys Lys Ser Glu Glu Tyr Glu Asp Asp Phe Glu Lys Asp Leu	
	20 25 30
Glu Trp Leu Ile Asn Glu Asn Glu Lys Ser Asp Ala Ser Ile Ile Glu	
	35 40 45
Met Ala Cys Glu Lys Glu Glu Asn Ile Asn Gln Asp Leu Lys Glu Asn	
	50 55 60
Glu Thr Val Met Glu His Thr Lys Arg His Ser Asp Pro Asp Lys Ser	
65	70 75 80
Leu Gln Asp Glu Val Ser Pro Arg Arg Asn Asp Ile Ile Ser Val Pro	
	85 90 95
Gly Ile Gln Pro Leu Asp Pro Ile Ser Asp Ser Asp Ser Glu Asn Ser	
	100 105 110
Phe Gln Glu Ser Lys Leu Glu Ser Gln Lys Asp Leu Glu Glu Glu Glu	
	115 120 125
Asp Glu Glu Val Arg Arg Tyr Ile Met Glu Lys Ile Val Gln Ala Asn	
	130 135 140
Lys Leu Leu Gln Asn Gln Glu Pro Val Asn Asp Lys Arg Glu Arg Lys	
145	150 155 160
Leu Lys Phe Lys Asp Gln Leu Val Asp Leu Glu Val Pro Pro Leu Glu	
	165 170 175
Asp Thr Thr Thr Ser Lys Asn Tyr Phe Glu Asn Glu Arg Asn Met Phe	
	180 185 190
Gly Lys Leu Ser Gln Leu Cys Ile Ser Asn Asp Phe Gly Gln Glu Asp	
	195 200 205
Val Leu Leu Ser Leu Thr Asn Gly Ser Cys Glu Glu Asn Lys Asp Arg	
	210 215 220
Thr Ile Leu Val Glu Arg Asp Gly Lys Phe Glu Leu Leu Asn Leu Gln	
225	230 235 240
Asp Ile Ala Ser Gln Gly Phe Leu Pro Pro Ile Asn Asn Ala Asn Ser	
	245 250 255
Thr Glu Asn Asp Pro Gln Gln Leu Leu Pro Arg Ser Ser Asn Ser Ser	
	260 265 270
Val Ser Gly Thr Lys Lys Glu Asp Ser Thr Ala Lys Ile His Ala Val	
	275 280 285
Thr His Ser Ser Thr Gly Glu Pro Leu Ala Tyr Ile Ala Gln Pro Pro	
	290 295 300
Leu Asn Arg Lys Thr Cys Pro Ser Ser Ala Val Asn Ser Asp Arg Ser	
305	310 315 320
Lys Gly Asn Gly Lys Ser Asn His Arg Thr Gln Ser Ala His Ile Ser	
	325 330 335
Pro Val Thr Ser Thr Tyr Cys Leu Ser Pro Arg Gln Lys Glu Leu Gln	
	340 345 350
Lys Gln Leu Glu Glu Lys Arg Glu Lys Leu Lys Arg Glu Glu Glu Arg	

355	360	365
Arg Lys Ile Glu Glu Glu Lys Glu Lys Lys Arg Glu Asn Asp Ile Val		
370	375	380
Phe Lys Ala Trp Leu Gln Lys Lys Arg Glu Gln Val Leu Glu Met Arg		
385	390	395
Arg Ile Gln Arg Ala Lys Glu Ile Glu Asp Met Asn Ser Arg Gln Glu		
405	410	415
Asn Arg Asp Pro Gln Gln Ala Phe Arg Leu Trp Leu Lys Lys Lys His		
420	425	430
Glu Glu Gln Met Lys Glu Arg Gln Thr Glu Glu Leu Arg Lys Gln Glu		
435	440	445
Glu Cys Leu Phe Phe Leu Lys Gly Thr Glu Gly Arg Glu Arg Ala Phe		
450	455	460
Lys Gln Trp Leu Arg Arg Lys Arg Met Glu Lys Met Ala Glu Gln Gln		
465	470	475
Ala Val Arg Glu Arg Thr Arg Gln Leu Arg Leu Glu Ala Lys Arg Ser		
485	490	495
Lys Gln Leu Gln His His Leu Tyr Met Ser Glu Ala Lys Pro Phe Arg		
500	505	510
Phe Thr Asp His Tyr Asn		
515	518	

<210> 3834
 <211> 66
 <212> PRT
 <213> Homo sapiens

<400> 3834
Arg Ser Arg Thr Glu Glu Leu Ser Asn Ser Gly Ile Leu Lys Ala Met
1 5 10 15
Ser Lys Asp Leu Val Thr Phe Gly Asp Val Ala Val Asn Phe Ser Gln
20 25 30
Glu Glu Trp Glu Trp Leu Asn Pro Ala Gln Arg Asn Leu Tyr Arg Lys
35 40 45
Val Met Leu Glu Asn Tyr Arg Ser Leu Val Ser Leu Gly Lys Asp Met
50 55 60
Ser Pro
65 66

<210> 3835
 <211> 32
 <212> PRT
 <213> Homo sapiens

<400> 3835
Ala Ser Asp Phe Tyr Leu Arg Tyr Tyr Val Gly His Lys Gly Lys Phe
1 5 10 15
Gly His Glu Phe Leu Glu Phe Glu Phe Arg Pro Asp Gly Val Tyr Val
20 25 30 32

<210> 3836
 <211> 219
 <212> PRT
 <213> Homo sapiens

<400> 3836

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Arg Pro Thr Pro Gly His Gly Asp Phe Trp Met Gln Pro Leu Thr Lys
 1          5          10          15
Asp Ala Gly Met Ser Leu Ser Ser Val Thr Leu Ala Ser Ala Leu Gln
          20          25          30
Val Arg Gly Glu Ala Leu Ser Glu Glu Glu Ile Trp Ser Leu Leu Phe
          35          40          45
Leu Ala Ala Glu Gln Leu Leu Glu Asp Leu Arg Asn Asp Ser Ser Asp
          50          55          60
Tyr Val Val Cys Pro Trp Ser Ala Leu Leu Ser Ala Ala Gly Ser Leu
          65          70          75          80
Ser Phe Gln Gly Arg Val Ser His Ile Glu Ala Ala Pro Phe Lys Ala
          85          90          95
Pro Glu Leu Leu Gln Gly Gln Ser Glu Asp Glu Gln Pro Asp Ala Ser
          100          105          110
Gln Met His Val Tyr Ser Leu Gly Met Thr Leu Tyr Trp Ser Ala Gly
          115          120          125
Phe His Val Pro Pro His Gln Pro Leu Gln Leu Cys Glu Pro Leu His
          130          135          140
Ser Ile Leu Leu Thr Met Cys Glu Asp Gln Pro His Arg Arg Cys Thr
          145          150          155          160
Leu Gln Ser Val Leu Glu Ala Cys Arg Val His Glu Lys Glu Val Ser
          165          170          175
Val Tyr Pro Ala Pro Ala Gly Leu His Ile Arg Arg Leu Val Gly Leu
          180          185          190
Val Leu Gly Thr Ile Ser Glu Val Ser Arg Glu Pro Cys Phe Ser Ser
          195          200          205
Ser Ser Cys Trp Ser Cys Val Ala Ile Lys Ile
          210          215          219

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<210> 3837

<211> 403

<212> PRT

<213> Homo sapiens

<400> 3837

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Ser Leu Gly Cys Thr Asn Ser Ala Arg Gly Lys Gly Gln Asp Asp Glu
 1          5          10          15
Val Arg Thr Leu Met Ala Asn Gly Ala Pro Phe Thr Thr Asp Trp Phe
          20          25          30
Ser Lys Leu Arg Val Ser Cys Gly Tyr Ile Gly Asp Asn Cys Lys Asn
          35          40          45
Gly Ala Asp Val Asn Ala Lys Asp Met Leu Lys Met Thr Ala Leu His
          50          55          60
Trp Ala Thr Glu Arg His His Arg Asp Val Val Glu Leu Leu Ile Lys
          65          70          75          80
Tyr Gly Ala Asp Val His Ala Phe Ser Lys Phe Asp Lys Ser Ala Phe
          85          90          95
Asp Ile Ala Leu Glu Lys Asn Asn Ala Glu Ile Leu Val Ile Leu Gln
          100          105          110
Glu Ala Met Gln Asn Gln Val Asn Val Asn Pro Glu Arg Ala Asn Pro
          115          120          125
Val Thr Asp Pro Val Ser Met Ala Ala Pro Phe Ile Phe Thr Ser Gly
          130          135          140
Glu Val Val Asn Leu Ala Ser Leu Ile Ser Ser Thr Asn Thr Lys Thr
          145          150          155          160
Thr Ser Gly Asp Pro His Ala Ser Thr Val Gln Phe Ser Asn Ser Thr
          165          170          175
Thr Ser Val Leu Ala Thr Leu Ala Ala Leu Ala Glu Ala Ser Val Pro

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      180      185      190
Leu Ser Asn Ser His Arg Ala Thr Ala Asn Thr Glu Glu Ile Ile Glu
      195      200      205
Gly Asn Ser Val Asp Ser Ser Ile Gln Gln Val Met Gly Ser Gly Gly
      210      215      220
Gln Arg Val Ile Thr Ile Val Thr Asp Gly Val Pro Leu Gly Asn Ile
225      230      235      240
Gln Thr Ser Ile Pro Thr Gly Gly Ile Gly His Pro Phe Ile Val Thr
      245      250      255
Val Gln Asp Gly Gln Gln Val Leu Thr Val Pro Ala Gly Lys Val Ala
      260      265      270
Glu Glu Thr Val Ile Lys Glu Glu Glu Glu Glu Lys Leu Pro Leu Thr
      275      280      285
Lys Lys Pro Arg Ile Gly Glu Lys Thr Asn Ser Val Glu Glu Ser Lys
      290      295      300
Glu Gly Asn Glu Arg Glu Leu Leu Gln Gln Gln Leu Gln Glu Ala Asn
305      310      315      320
Arg Arg Ala Gln Glu Tyr Arg His Gln Leu Leu Lys Lys Glu Gln Glu
      325      330      335
Ala Glu Gln Tyr Arg Leu Lys Leu Glu Ala Ile Ala Arg Gln Gln Pro
      340      345      350
Asn Gly Val Asp Phe Thr Met Val Glu Glu Val Ala Glu Val Asp Ala
      355      360      365
Val Val Val Thr Glu Gly Glu Leu Glu Glu Arg Glu Thr Lys Val Thr
      370      375      380
Gly Ser Ala Gly Ala Thr Gly Pro Pro Thr Arg Val Ser Met Ala Thr
385      390      395      400
Val Ser Ser
      403

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<210> 3838

<211> 444

<212> PRT

<213> Homo sapiens

<400> 3838

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Met Ile Glu Asp Asn Lys Glu Asn Lys Asp His Ser Leu Glu Arg Gly
  1      5      10      15
Arg Ala Ser Leu Ile Phe Ser Leu Lys Asn Glu Val Gly Gly Leu Ile
      20      25      30
Lys Ala Leu Lys Ile Phe Gln Glu Lys His Val Asn Leu Leu His Ile
      35      40      45
Glu Ser Arg Lys Ser Lys Arg Arg Asn Ser Glu Phe Glu Ile Phe Val
      50      55      60
Asp Cys Asp Ile Asn Arg Glu Gln Leu Asn Asp Ile Phe His Leu Leu
      65      70      75      80
Lys Ser His Thr Asn Val Leu Ser Val Asn Leu Pro Asp Asn Phe Thr
      85      90      95
Leu Lys Glu Asp Gly Met Glu Thr Val Pro Trp Phe Pro Lys Lys Ile
      100      105      110
Ser Asp Leu Asp His Cys Ala Asn Arg Val Leu Met Tyr Gly Ser Glu
      115      120      125
Leu Asp Ala Asp His Pro Gly Phe Lys Asp Asn Val Tyr Arg Lys Arg
      130      135      140
Arg Lys Tyr Phe Ala Asp Leu Ala Met Asn Tyr Lys His Gly Asp Pro
145      150      155      160
Ile Pro Lys Val Glu Phe Thr Glu Glu Glu Ile Lys Thr Trp Gly Thr
      165      170      175
Val Phe Gln Glu Leu Asn Lys Leu Tyr Pro Thr His Ala Cys Arg Glu
      180      185      190
Tyr Leu Lys Asn Leu Pro Leu Leu Ser Lys Tyr Cys Gly Tyr Arg Glu

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195	200	205
Asp Asn Ile Pro Gln Leu Glu	Asp Val Ser Asn Phe Leu Lys Glu Arg	
210	215	220
Thr Gly Phe Ser Ile Arg Pro Val Ala Gly Tyr Leu Ser Pro Arg Asp		
225	230	235
Phe Leu Ser Gly Leu Ala Phe Arg Val Phe His Cys Thr Gln Tyr Val		240
245	250	255
Arg His Ser Ser Asp Pro Phe Tyr Thr Pro Glu Pro Asp Thr Cys His		
260	265	270
Glu Leu Leu Gly His Val Pro Leu Leu Ala Glu Pro Ser Phe Ala Gln		
275	280	285
Phe Ser Gln Glu Ile Gly Leu Ala Ser Leu Gly Ala Ser Glu Glu Ala		
290	295	300
Val Gln Lys Leu Ala Thr Cys Tyr Phe Phe Thr Val Glu Phe Gly Leu		
305	310	315
Cys Lys Gln Asp Gly Gln Leu Arg Val Phe Gly Ala Gly Leu Leu Ser		320
325	330	335
Ser Ile Ser Glu Leu Lys His Ala Leu Ser Gly His Ala Lys Val Lys		
340	345	350
Pro Phe Asp Pro Lys Ile Thr Cys Lys Gln Glu Cys Leu Ile Thr Thr		
355	360	365
Phe Gln Asp Val Tyr Phe Val Ser Glu Ser Phe Glu Asp Ala Lys Glu		
370	375	380
Lys Met Arg Glu Phe Thr Lys Thr Ile Lys Arg Pro Phe Gly Val Lys		
385	390	395
Tyr Asn Pro Tyr Thr Arg Ser Ile Gln Ile Leu Lys Asp Thr Lys Ser		400
405	410	415
Ile Thr Ser Ala Met Asn Glu Leu Gln His Asp Leu Asp Val Val Ser		
420	425	430
Asp Ala Leu Ala Lys Val Ser Arg Lys Pro Ser Ile		
435	440	444

<210> 3839

<211> 858

<212> PRT

<213> Homo sapiens

<400> 3839

Met Val Asn Phe Thr Val Asp Gln Ile Arg Ala Ile Met Asp Lys Lys	
1	5
Ala Asn Ile Arg Asn Met Ser Val Ile Ala His Val Asp His Gly Lys	
20	25
Ser Thr Leu Thr Asp Ser Leu Val Cys Lys Ala Gly Ile Ile Ala Ser	
35	40
Ala Arg Ala Gly Glu Thr Arg Phe Thr Asp Thr Arg Lys Asp Glu Gln	
50	55
Glu Arg Cys Ile Thr Ile Lys Ser Thr Ala Ile Ser Leu Phe Tyr Glu	
65	70
Leu Ser Glu Asn Asp Leu Asn Phe Ile Lys Gln Ser Lys Asp Gly Ala	
85	90
Gly Phe Leu Ile Asn Leu Ile Asp Ser Pro Gly His Val Asp Phe Ser	
100	105
Ser Glu Val Thr Ala Ala Leu Arg Val Thr Asp Gly Ala Leu Val Val	
115	120
Val Asp Cys Val Ser Gly Val Cys Val Gln Thr Glu Thr Val Leu Arg	
130	135
Gln Ala Ile Ala Glu Arg Ile Lys Pro Val Leu Met Met Asn Lys Met	
145	150
Asp Arg Ala Leu Leu Glu Leu Gln Leu Glu Pro Glu Glu Leu Tyr Gln	
165	170
Thr Phe Gln Arg Ile Val Glu Asn Val Asn Val Ile Ile Ser Thr Tyr	
	175

			180					185					190				
Gly	Glu	Gly	Glu	Ser	Gly	Pro	Met	Gly	Asn	Ile	Met	Ile	Asp	Pro	Val		
		195					200						205				
Leu	Gly	Thr	Val	Gly	Phe	Gly	Ser	Gly	Leu	His	Gly	Trp	Ala	Phe	Thr		
		210				215						220					
Leu	Lys	Gln	Phe	Ala	Glu	Met	Tyr	Val	Ala	Lys	Phe	Ala	Ala	Lys	Gly		
225					230						235				240		
Glu	Gly	Gln	Leu	Gly	Pro	Ala	Glu	Arg	Ala	Lys	Lys	Val	Glu	Asp	Met		
				245					250					255			
Met	Lys	Lys	Leu	Trp	Gly	Asp	Arg	Tyr	Phe	Asp	Pro	Ala	Asn	Gly	Lys		
			260					265					270				
Phe	Ser	Lys	Ser	Ala	Thr	Ser	Pro	Glu	Gly	Lys	Lys	Leu	Pro	Arg	Thr		
		275					280					285					
Phe	Cys	Gln	Leu	Ile	Leu	Asp	Pro	Ile	Phe	Lys	Val	Phe	Asp	Ala	Ile		
290						295					300						
Met	Asn	Phe	Lys	Lys	Glu	Glu	Thr	Ala	Lys	Leu	Ile	Glu	Lys	Leu	Asp		
305					310					315					320		
Ile	Lys	Leu	Asp	Ser	Glu	Asp	Lys	Asp	Lys	Glu	Gly	Lys	Pro	Leu	Leu		
				325				330						335			
Lys	Ala	Val	Met	Arg	Arg	Trp	Leu	Pro	Ala	Gly	Asp	Ala	Leu	Leu	Gln		
			340					345					350				
Met	Ile	Thr	Ile	His	Leu	Pro	Ser	Pro	Val	Thr	Ala	Gln	Lys	Tyr	Arg		
		355					360					365					
Cys	Glu	Leu	Leu	Tyr	Glu	Gly	Pro	Pro	Asp	Asp	Glu	Ala	Ala	Met	Gly		
370					375						380						
Ile	Lys	Ser	Cys	Asp	Pro	Lys	Gly	Pro	Leu	Met	Met	Tyr	Ile	Ser	Lys		
385					390					395					400		
Met	Val	Pro	Thr	Ser	Asp	Lys	Gly	Arg	Phe	Tyr	Ala	Phe	Gly	Arg	Val		
				405					410					415			
Phe	Ser	Gly	Leu	Val	Ser	Thr	Gly	Leu	Lys	Val	Arg	Ile	Met	Gly	Pro		
			420					425					430				
Asn	Tyr	Thr	Pro	Gly	Lys	Lys	Glu	Asp	Leu	Tyr	Leu	Lys	Pro	Ile	Gln		
		435					440					445					
Arg	Thr	Ile	Leu	Met	Met	Gly	Arg	Tyr	Val	Glu	Pro	Ile	Glu	Asp	Val		
450						455					460						
Pro	Cys	Gly	Asn	Ile	Val	Gly	Leu	Val	Gly	Val	Asp	Gln	Phe	Leu	Val		
465					470					475					480		
Lys	Thr	Gly	Thr	Ile	Thr	Thr	Phe	Glu	His	Ala	His	Asn	Met	Arg	Val		
				485					490					495			
Met	Lys	Phe	Ser	Val	Ser	Pro	Val	Val	Arg	Val	Ala	Val	Glu	Ala	Lys		
			500					505					510				
Asn	Pro	Ala	Asp	Leu	Pro	Lys	Leu	Val	Glu	Gly	Leu	Lys	Arg	Leu	Ala		
		515					520					525					
Lys	Ser	Asp	Pro	Met	Val	Gln	Cys	Ile	Ile	Glu	Glu	Ser	Gly	Glu	His		
530						535					540						
Ile	Ile	Ala	Gly	Ala	Gly	Glu	Leu	His	Leu	Glu	Ile	Cys	Leu	Lys	Asp		
545					550					555					560		
Leu	Glu	Glu	Asp	His	Ala	Cys	Ile	Pro	Ile	Lys	Lys	Ser	Asp	Pro	Val		
				565					570					575			
Val	Ser	Tyr	Arg	Glu	Thr	Val	Ser	Glu	Glu	Ser	Asn	Val	Leu	Cys	Leu		
			580					585					590				
Ser	Lys	Ser	Pro	Asn	Lys	His	Asn	Arg	Leu	Tyr	Met	Lys	Ala	Arg	Pro		
		595					600					605					
Phe	Pro	Asp	Gly	Leu	Ala	Glu	Asp	Ile	Asp	Lys	Gly	Glu	Val	Ser	Ala		
610						615					620						
Arg	Gln	Glu	Leu	Lys	Gln	Arg	Ala	Arg	Tyr	Leu	Ala	Glu	Lys	Tyr	Glu		
625					630					635					640		
Trp	Asp	Val	Ala	Glu	Ala	Arg	Lys	Ile	Trp	Cys	Phe	Gly	Pro	Asp	Gly		
				645					650					655			
Thr	Gly	Pro	Asn	Ile	Leu	Thr	Asp	Ile	Thr	Lys	Gly	Val	Gln	Tyr	Leu		
			660					665					670				
Asn	Glu	Ile	Lys	Asp	Ser	Val	Val	Ala	Gly	Phe	Gln	Trp	Ala	Thr	Lys		
		675					680					685					
Glu	Gly	Ala	Leu	Cys	Glu	Glu	Asn	Met	Arg	Gly	Val	Arg	Phe	Asp	Val		

690	695	700
His Asp Val Thr Leu	His Ala Asp Ala Ile	His Arg Gly Gly Gly Gln
705	710	715
Ile Ile Pro Thr Ala	Arg Arg Cys Leu Tyr	Ala Ser Val Leu Thr Ala
725	730	735
Gln Pro Arg Leu Met	Glu Pro Ile Tyr Leu	Val Glu Ile Gln Cys Pro
740	745	750
Glu Gln Val Val Gly	Gly Ile Tyr Gly Val	Leu Asn Arg Lys Arg Gly
755	760	765
His Val Phe Glu Glu	Ser Gln Val Ala Gly	Thr Pro Met Phe Val Val
770	775	780
Lys Ala Tyr Leu Pro	Val Asn Glu Ser Phe	Gly Phe Thr Ala Asp Leu
785	790	795
Arg Ser Asn Thr Gly	Gly Gln Ala Phe Pro	Gln Cys Val Phe Asp His
805	810	815
Trp Gln Ile Leu Pro	Gly Asp Pro Phe Asp	Asn Ser Ser Arg Pro Ser
820	825	830
Gln Val Val Ala Glu	Thr Arg Lys Arg Lys	Gly Leu Lys Glu Gly Ile
835	840	845
Pro Ala Leu Asp Asn	Phe Leu Asp Lys Leu	
850	855	858

<210> 3840
 <211> 250
 <212> PRT
 <213> Homo sapiens

<400> 3840
Ser Ser Thr Arg Ser Arg Asp Phe Cys Cys Ser Glu Ala Ile Gln Gly
1 5 10 15
Ser Leu Thr Arg Arg Glu Arg Arg Ala Ser Gly Val Arg Thr Arg Arg
20 25 30
Ser Gln Gly Ser Ser Ala Met Ala Ser Lys Ile Leu Leu Asn Val Gln
35 40 45
Glu Glu Val Thr Cys Pro Ile Cys Leu Glu Leu Leu Thr Glu Pro Leu
50 55 60
Ser Leu Asp Cys Gly His Ser Leu Cys Arg Ala Cys Ile Thr Val Ser
65 70 75 80
Asn Lys Glu Ala Val Thr Ser Met Gly Gly Lys Ser Ser Cys Pro Val
85 90 95
Cys Gly Ile Ser Tyr Ser Phe Glu His Leu Gln Ala Asn Gln His Leu
100 105 110
Ala Asn Ile Val Glu Arg Leu Lys Glu Val Lys Leu Ser Pro Asp Asn
115 120 125
Gly Lys Lys Arg Asp Leu Cys Asp His His Gly Glu Lys Leu Leu Leu
130 135 140
Phe Cys Lys Glu Asp Arg Lys Val Ile Cys Trp Leu Cys Glu Arg Ser
145 150 155 160
Gln Glu His Arg Gly His His Thr Val Leu Thr Glu Glu Val Phe Lys
165 170 175
Glu Cys Gln Glu Lys Leu Gln Ala Val Leu Lys Arg Leu Lys Lys Glu
180 185 190
Glu Glu Glu Ala Glu Lys Leu Glu Ala Asp Ile Arg Glu Glu Lys Thr
195 200 205
Ser Trp Lys Tyr Gln Val Gln Thr Glu Arg Gln Arg Ile Gln Thr Glu
210 215 220
Phe Asp Gln Leu Arg Ser Ile Leu Asn Asn Glu Glu Gln Arg Glu Leu
225 230 235 240
Gln Arg Leu Glu Glu Glu Glu Lys Lys Thr
245 250

<210> 3841
 <211> 134
 <212> PRT
 <213> Homo sapiens

<400> 3841
 Gly Lys Ala Phe Ser Cys Phe Thr Tyr Leu Ser Gln His Arg Arg Thr
 1 5 10 15
 His Met Ala Glu Lys Pro Tyr Glu Cys Lys Thr Cys Lys Lys Ala Phe
 20 25 30
 Ser His Phe Gly Asn Leu Lys Val His Glu Arg Ile His Thr Gly Glu
 35 40 45
 Lys Pro Tyr Glu Cys Lys Glu Cys Arg Lys Ala Phe Ser Trp Leu Thr
 50 55 60
 Cys Leu Leu Arg His Glu Arg Ile His Thr Gly Lys Lys Ser Tyr Glu
 65 70 75 80
 Cys Gln Gln Cys Gly Lys Ala Phe Thr Arg Ser Arg Phe Leu Arg Gly
 85 90 95
 His Glu Lys Thr His Thr Gly Glu Lys Met His Glu Cys Lys Glu Cys
 100 105 110
 Gly Lys Ala Leu Ser Ser Leu Ser Ser Leu His Arg His Lys Arg Thr
 115 120 125
 His Trp Arg Asp Thr Leu
 130 134

<210> 3842
 <211> 74
 <212> PRT
 <213> Homo sapiens

<400> 3842
 Ala Val Leu Lys Asn Met Ala Pro Met Thr Ala Leu Gly Leu Leu Asp
 1 5 10 15
 Leu His Ile Leu Asn Leu Ile Leu Phe Leu Ser Ala Gly Glu Asp Phe
 20 25 30
 Thr Ser Val Val Ser Glu Ile Met Met Tyr Ile Leu Leu Val Phe Leu
 35 40 45
 Thr Leu Trp Leu Leu Ile Glu Met Ile Tyr Cys Tyr Arg Lys Val Ser
 50 55 60
 Lys Ala Glu Glu Ala Ala Gln Glu Asn Ala
 65 70 74

<210> 3843
 <211> 390
 <212> PRT
 <213> Homo sapiens

<400> 3843
 Ala Pro Ile Arg Asn Ser Arg Ile Asp Asp Phe Val Arg Arg Val Glu
 1 5 10 15
 Ser Lys Ala Thr Ser Ala Arg Cys Gly Leu Trp Gly Ser Gly Pro Arg
 20 25 30
 Arg Arg Pro Ala Ser Gly Met Phe Arg Gly Leu Ser Ser Trp Leu Gly
 35 40 45
 Leu Gln Gln Pro Val Ala Gly Gly Gly Gln Pro Asn Gly Asp Ala Pro

50	55	60
Pro Glu Gln Pro Ser Glu Thr Val Ala Glu Ser Ala Glu Glu Glu Leu		
65	70	75
Gln Gln Ala Gly Asp Gln Glu Leu Leu His Gln Ala Lys Asp Phe Gly		80
	85	90
Asn Tyr Leu Phe Asn Phe Ala Ser Ala Ala Thr Lys Lys Ile Thr Glu		95
	100	105
Ser Val Ala Glu Thr Ala Gln Thr Ile Lys Lys Ser Val Glu Glu Gly		110
	115	120
Lys Ile Asp Gly Ile Ile Asp Lys Thr Ile Ile Gly Asp Phe Gln Lys		125
	130	135
Glu Gln Lys Lys Phe Val Glu Glu Gln His Thr Lys Lys Ser Glu Ala		140
145	150	155
Ala Val Pro Pro Trp Val Asp Thr Asn Asp Glu Glu Thr Ile Gln Gln		160
	165	170
Gln Ile Leu Ala Leu Ser Ala Asp Lys Arg Asn Phe Leu Arg Asp Pro		175
	180	185
Pro Ala Gly Val Gln Phe Asn Phe Asp Phe Asp Gln Met Tyr Pro Val		190
	195	200
Ala Leu Val Met Leu Gln Glu Asp Glu Leu Leu Ser Lys Met Arg Phe		205
	210	215
Ala Leu Val Pro Lys Leu Val Lys Glu Glu Val Phe Trp Arg Asn Tyr		220
225	230	235
Phe Tyr Arg Val Ser Leu Ile Lys Gln Ser Ala Gln Leu Thr Ala Leu		240
	245	250
Ala Ala Gln Gln Gln Ala Ala Gly Lys Glu Glu Lys Ser Asn Gly Arg		255
	260	265
Glu Gln Asp Leu Pro Leu Ala Glu Ala Val Arg Pro Lys Thr Pro Pro		270
	275	280
Val Val Ile Lys Ser Gln Leu Lys Thr Gln Glu Asp Glu Glu Glu Ile		285
	290	295
Ser Thr Ser Pro Gly Val Ser Glu Phe Val Ser Asp Ala Phe Asp Ala		300
305	310	315
Cys Asn Leu Asn Gln Glu Asp Leu Arg Lys Glu Met Glu Gln Leu Val		320
	325	330
Leu Asp Lys Lys Gln Glu Glu Thr Ala Val Leu Glu Glu Asp Ser Ala		335
	340	345
Asp Trp Glu Lys Glu Leu Gln Gln Glu Leu Gln Glu Tyr Glu Val Val		350
	355	360
Thr Glu Ser Glu Lys Arg Asp Glu Asn Trp Asp Lys Glu Ile Glu Lys		365
	370	375
Met Leu Gln Glu Glu Asn		380
385	390	

<210> 3844

<211> 217

<212> PRT

<213> Homo sapiens

<400> 3844

Leu Pro Pro Ala Gln Ile Pro Glu Ala Trp Leu Leu Leu Ala Asn Val	
1	5
Val Val Val Leu Ile Leu Val Pro Leu Lys Asp Arg Leu Ile Asp Pro	10
	20
Leu Leu Leu Arg Cys Lys Leu Leu Pro Ser Ala Leu Gln Lys Met Ala	25
	30
Leu Gly Met Phe Phe Gly Phe Thr Ser Val Ile Val Ala Gly Val Leu	35
	40
Glu Met Glu Arg Leu His Tyr Ile His His Asn Glu Thr Val Ser Gln	45
	50
Gln Ile Gly Glu Val Leu Tyr Asn Ala Ala Pro Leu Ser Ile Trp Trp	55
	60
	65
	70
	75
	80

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<210> 3845
<211> 643
<212> PRT
<213> Homo sapiens
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5599

290 295 300
 Val Arg Ser Arg Ser Ile Arg Ser Val Ala Ile Glu Val Asp Gly Arg
 305 310 315 320
 Val Tyr His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg Asn Leu Thr
 325 330 335
 Lys Arg His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly
 340 345 350
 Gly Asp Phe Ser Gly Thr Gly Gly Leu Pro Asp Tyr Ser Ala Ala Asn
 355 360 365
 Pro Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val
 370 375 380
 Gln Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His
 385 390 395 400
 Lys Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn Lys Ile Lys
 405 410 415
 Asn Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg Pro Glu Glu
 420 425 430
 Cys Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys Gly Arg Leu
 435 440 445
 Lys His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly Leu Gln Glu
 450 455 460
 Lys Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu
 465 470 475 480
 Arg Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro
 485 490 495
 Gly Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro
 500 505 510
 Phe Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn
 515 520 525
 Thr Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe
 530 535 540
 Cys Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp
 545 550 555 560
 Pro Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu
 565 570 575
 Asn Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr
 580 585 590
 Lys Gln Cys Asn Pro Arg Thr Arg Asn Met Asp Leu Gly Leu Lys Asp
 595 600 605
 Gly Gly Ser Tyr Glu Gln Tyr Arg Gln Phe Gln Arg Arg Lys Trp Pro
 610 615 620
 Glu Met Lys Arg Pro Ser Ser Lys Ser Leu Gly Gln Leu Trp Glu Gly
 625 630 635 640
 Trp Glu Gly
 643

<210> 3846

<211> 643

<212> PRT

<213> Homo sapiens

<400> 3846

Pro Glu Asp Ser Ala Pro Gln Tyr Ser Arg Leu Phe Pro Asn Ala Ser
 1 5 10 15
 Gln His Ile Thr Pro Ser Tyr Asn Tyr Ala Pro Asn Pro Asp Lys His
 20 25 30
 Trp Ile Met Arg Tyr Thr Gly Pro Met Lys Pro Ile His Met Glu Phe
 35 40 45
 Thr Asn Met Leu Gln Arg Lys Arg Leu Gln Thr Leu Met Ser Val Asp
 50 55 60
 Asp Ser Met Glu Thr Ile Tyr Asn Met Leu Val Glu Thr Gly Glu Leu

65	70	75	80
Asp Asn Thr Tyr Ile Val Tyr Thr Ala Asp His Gly Tyr His Ile Gly			
	85	90	95
Gln Phe Gly Leu Val Lys Gly Lys Ser Met Pro Tyr Glu Phe Asp Ile			
	100	105	110
Arg Val Pro Phe Tyr Val Arg Gly Pro Asn Val Glu Ala Gly Cys Leu			
	115	120	125
Asn Pro His Ile Val Leu Asn Ile Asp Leu Ala Pro Thr Ile Leu Asp			
	130	135	140
Ile Ala Gly Leu Asp Ile Pro Ala Asp Met Asp Gly Lys Ser Ile Leu			
145	150	155	160
Lys Leu Leu Asp Thr Glu Arg Pro Val Asn Arg Phe His Leu Lys Lys			
	165	170	175
Lys Met Arg Val Trp Arg Asp Ser Phe Leu Val Glu Arg Gly Lys Leu			
	180	185	190
Leu His Lys Arg Asp Asn Asp Lys Val Asp Ala Gln Glu Asn Phe			
	195	200	205
Leu Pro Lys Tyr Gln Arg Val Lys Asp Leu Cys Gln Arg Ala Glu Tyr			
	210	215	220
Gln Thr Ala Cys Glu Gln Leu Gly Gln Lys Trp Gln Cys Val Glu Asp			
225	230	235	240
Ala Thr Gly Lys Leu Lys Leu His Lys Cys Lys Gly Pro Met Arg Leu			
	245	250	255
Gly Gly Ser Arg Ala Leu Ser Asn Leu Val Pro Lys Tyr Tyr Gly Gln			
	260	265	270
Gly Ser Glu Ala Cys Thr Cys Asp Ser Gly Asp Tyr Lys Leu Ser Leu			
	275	280	285
Ala Gly Arg Arg Lys Lys Leu Phe Lys Lys Lys Tyr Lys Ala Ser Tyr			
	290	295	300
Val Arg Ser Arg Ser Ile Arg Ser Val Ala Ile Glu Val Asp Gly Arg			
305	310	315	320
Val Tyr His Val Gly Leu Gly Asp Ala Ala Gln Pro Arg Asn Leu Thr			
	325	330	335
Lys Arg His Trp Pro Gly Ala Pro Glu Asp Gln Asp Asp Lys Asp Gly			
	340	345	350
Gly Asp Phe Ser Gly Thr Gly Gly Leu Pro Asp Tyr Ser Ala Ala Asn			
	355	360	365
Pro Ile Lys Val Thr His Arg Cys Tyr Ile Leu Glu Asn Asp Thr Val			
	370	375	380
Gln Cys Asp Leu Asp Leu Tyr Lys Ser Leu Gln Ala Trp Lys Asp His			
385	390	395	400
Lys Leu His Ile Asp His Glu Ile Glu Thr Leu Gln Asn Lys Ile Lys			
	405	410	415
Asn Leu Arg Glu Val Arg Gly His Leu Lys Lys Lys Arg Pro Glu Glu			
	420	425	430
Cys Asp Cys His Lys Ile Ser Tyr His Thr Gln His Lys Gly Arg Leu			
	435	440	445
Lys His Arg Gly Ser Ser Leu His Pro Phe Arg Lys Gly Leu Gln Glu			
	450	455	460
Lys Asp Lys Val Trp Leu Leu Arg Glu Gln Lys Arg Lys Lys Lys Leu			
465	470	475	480
Arg Lys Leu Leu Lys Arg Leu Gln Asn Asn Asp Thr Cys Ser Met Pro			
	485	490	495
Gly Leu Thr Cys Phe Thr His Asp Asn Gln His Trp Gln Thr Ala Pro			
	500	505	510
Phe Trp Thr Leu Gly Pro Phe Cys Ala Cys Thr Ser Ala Asn Asn Asn			
	515	520	525
Thr Tyr Trp Cys Met Arg Thr Ile Asn Glu Thr His Asn Phe Leu Phe			
	530	535	540
Cys Glu Phe Ala Thr Gly Phe Leu Glu Tyr Phe Asp Leu Asn Thr Asp			
545	550	555	560
Pro Tyr Gln Leu Met Asn Ala Val Asn Thr Leu Asp Arg Asp Val Leu			
	565	570	575
Asn Gln Leu His Val Gln Leu Met Glu Leu Arg Ser Cys Lys Gly Tyr			

			580					585				590							
Lys	Gln	Cys	Asn	Pro	Arg	Thr	Arg	Asn	Met	Asp	Leu	Gly	Leu	Lys	Asp				
		595						600				605							
Gly	Gly	Ser	Tyr	Glu	Gln	Tyr	Arg	Gln	Phe	Gln	Arg	Arg	Lys	Trp	Pro				
	610					615				620									
Glu	Met	Lys	Arg	Pro	Ser	Ser	Lys	Ser	Leu	Gly	Gln	Leu	Trp	Glu	Gly				
625					630					635					640				
Trp	Glu	Gly																	
		643																	

<210> 3847

<211> 419

<212> PRT

<213> Homo sapiens

<400> 3847

Met	Val	Phe	Ser	Ala	Val	Leu	Thr	Ala	Phe	His	Thr	Gly	Thr	Ser	Asn				
1				5					10					15					
Thr	Thr	Phe	Val	Val	Tyr	Glu	Asn	Thr	Tyr	Met	Asn	Ile	Thr	Leu	Pro				
		20					25					30							
Pro	Pro	Phe	Gln	His	Pro	Asp	Leu	Ser	Pro	Leu	Leu	Arg	Tyr	Ser	Phe				
		35				40						45							
Glu	Thr	Met	Ala	Pro	Thr	Gly	Leu	Ser	Ser	Leu	Thr	Val	Asn	Ser	Thr				
	50					55					60								
Ala	Val	Pro	Thr	Thr	Pro	Ala	Ala	Phe	Lys	Ser	Leu	Asn	Leu	Pro	Leu				
65					70				75						80				
Gln	Ile	Thr	Leu	Ser	Ala	Ile	Met	Ile	Phe	Ile	Leu	Phe	Val	Ser	Phe				
			85					90						95					
Leu	Gly	Asn	Leu	Val	Val	Cys	Leu	Met	Val	Tyr	Gln	Lys	Ala	Ala	Met				
		100					105					110							
Arg	Ser	Ala	Ile	Asn	Ile	Leu	Leu	Ala	Ser	Leu	Ala	Phe	Ala	Asp	Met				
		115				120						125							
Leu	Leu	Ala	Val	Leu	Asn	Met	Pro	Phe	Ala	Leu	Val	Thr	Ile	Leu	Thr				
	130					135					140								
Thr	Arg	Trp	Ile	Phe	Gly	Lys	Phe	Phe	Cys	Arg	Val	Ser	Ala	Met	Phe				
145					150					155					160				
Phe	Trp	Leu	Phe	Val	Ile	Glu	Gly	Val	Ala	Ile	Leu	Leu	Ile	Ile	Ser				
			165					170							175				
Ile	Asp	Arg	Phe	Leu	Ile	Ile	Val	Gln	Arg	Gln	Asp	Lys	Leu	Asn	Pro				
		180						185						190					
Tyr	Arg	Ala	Lys	Val	Leu	Ile	Ala	Val	Ser	Trp	Ala	Thr	Ser	Phe	Cys				
		195					200					205							
Val	Ala	Phe	Pro	Leu	Ala	Val	Gly	Asn	Pro	Asp	Leu	Gln	Ile	Pro	Ser				
	210					215					220								
Arg	Ala	Pro	Gln	Cys	Val	Phe	Gly	Tyr	Thr	Thr	Asn	Pro	Gly	Tyr	Gln				
225					230						235				240				
Ala	Tyr	Val	Ile	Leu	Ile	Ser	Leu	Ile	Ser	Phe	Phe	Ile	Pro	Phe	Leu				
			245					250						255					
Val	Ile	Leu	Tyr	Ser	Phe	Met	Gly	Ile	Leu	Asn	Thr	Leu	Arg	His	Asn				
		260						265						270					
Ala	Leu	Arg	Ile	His	Ser	Tyr	Pro	Glu	Gly	Ile	Cys	Leu	Ser	Gln	Ala				
	275						280					285							
Ser	Lys	Leu	Gly	Leu	Met	Gly	Leu	Gln	Arg	Pro	Phe	Gln	Met	Ser	Ile				
	290					295					300								
Asp	Met	Gly	Phe	Lys	Thr	Arg	Ala	Phe	Thr	Thr	Ile	Leu	Ile	Leu	Phe				
305					310						315				320				
Ala	Val	Phe	Ile	Val	Cys	Trp	Ala	Pro	Phe	Thr	Thr	Tyr	Ser	Leu	Val				
			325					330						335					
Ala	Thr	Phe	Ser	Lys	His	Phe	Tyr	Tyr	Gln	His	Asn	Phe	Phe	Glu	Ile				
		340					345					350							
Ser	Thr	Trp	Leu	Leu	Trp	Leu	Cys	Tyr	Leu	Lys	Ser	Ala	Leu	Asn	Pro				

355 360 365
 Leu Ile Tyr Tyr Trp Arg Ile Lys Lys Phe His Asp Ala Cys Leu Asp
 370 375 380
 Met Met Pro Lys Ser Phe Lys Phe Leu Pro Gln Leu Pro Gly His Thr
 385 390 395 400
 Lys Arg Arg Ile Arg Pro Ser Ala Val Tyr Val Cys Gly Glu His Arg
 405 410 415
 Thr Val Val
 419

<210> 3848

<211> 941

<212> PRT

<213> Homo sapiens

<400> 3848

Ser Ser Ala Val Ala Ala Arg Arg Arg Arg Ser Trp Ala Ser Leu Val
 1 5 10 15
 Leu Ala Phe Leu Gly Val Cys Leu Gly Ile Thr Leu Ala Val Asp Arg
 20 25 30
 Ser Asn Phe Lys Thr Cys Glu Glu Ser Ser Phe Cys Lys Arg Gln Arg
 35 40 45
 Ser Ile Arg Pro Gly Leu Ser Pro Tyr Arg Ala Leu Leu Asp Ser Leu
 50 55 60
 Gln Leu Gly Pro Asp Ser Leu Thr Val His Leu Ile His Glu Val Thr
 65 70 75 80
 Lys Val Leu Leu Val Leu Glu Leu Gln Gly Leu Gln Lys Asn Met Thr
 85 90 95
 Arg Phe Arg Ile Asp Glu Leu Glu Pro Arg Arg Pro Arg Tyr Arg Val
 100 105 110
 Pro Asp Val Leu Val Ala Asp Pro Pro Ile Ala Arg Leu Ser Val Ser
 115 120 125
 Gly Arg Asp Glu Asn Ser Val Glu Leu Thr Met Ala Glu Gly Pro Tyr
 130 135 140
 Lys Ile Ile Leu Thr Ala Arg Pro Phe Arg Leu Asp Leu Leu Glu Asp
 145 150 155 160
 Arg Ser Leu Leu Leu Ser Val Asn Ala Arg Gly Leu Leu Glu Phe Glu
 165 170 175
 His Gln Arg Ala Pro Arg Val Ser Gln Gly Ser Lys Asp Pro Ala Glu
 180 185 190
 Gly Asp Gly Ala Gln Pro Glu Glu Thr Pro Arg Asp Gly Asp Lys Pro
 195 200 205
 Glu Glu Thr Gln Gly Lys Ala Glu Lys Asp Glu Pro Gly Ala Trp Glu
 210 215 220
 Glu Thr Phe Lys Thr His Ser Asp Ser Lys Pro Tyr Gly Pro Met Ser
 225 230 235 240
 Val Gly Leu Asp Phe Ser Leu Pro Gly Met Glu His Val Tyr Gly Ile
 245 250 255
 Pro Glu His Ala Asp Asn Leu Arg Leu Lys Val Thr Glu Gly Gly Glu
 260 265 270
 Pro Tyr Arg Leu Tyr Asn Leu Asp Val Phe Gln Tyr Glu Leu Tyr Asn
 275 280 285
 Pro Met Ala Leu Tyr Gly Ser Val Pro Val Leu Leu Ala His Asn Pro
 290 295 300
 His Arg Asp Leu Gly Ile Phe Trp Leu Asn Ala Ala Glu Thr Trp Val
 305 310 315 320
 Asp Ile Ser Ser Asn Thr Ala Gly Lys Thr Leu Phe Gly Lys Met Met
 325 330 335
 Asp Tyr Leu Gln Gly Ser Gly Glu Thr Pro Gln Thr Asp Val Arg Trp
 340 345 350
 Met Ser Glu Thr Gly Ile Ile Asp Val Phe Leu Leu Leu Gly Pro Ser

355	360	365
Ile Ser Asp Val Phe Arg Gln Tyr Ala Ser Leu Thr Gly Thr Gln Ala		
370	375	380
Leu Pro Pro Leu Phe Ser Leu Gly Tyr His Gln Ser Arg Trp Asn Tyr		
385	390	395
Arg Asp Glu Ala Asp Val Leu Glu Val Asp Gln Gly Phe Asp Asp His		400
	405	410
Asn Leu Pro Cys Asp Val Ile Trp Leu Asp Ile Glu His Ala Asp Gly		415
	420	425
Lys Arg Tyr Phe Thr Trp Asp Pro Ser Arg Phe Pro Gln Pro Arg Thr		430
	435	440
Met Leu Glu Arg Leu Ala Ser Lys Arg Arg Lys Leu Val Ala Ile Val		445
	450	455
Asp Pro His Ile Lys Val Asp Ser Gly Tyr Arg Val His Glu Glu Leu		460
465	470	475
Arg Asn Leu Gly Leu Tyr Val Lys Thr Arg Asp Gly Ser Asp Tyr Glu		480
	485	490
Gly Trp Cys Trp Pro Gly Ser Ala Gly Tyr Pro Asp Phe Thr Asn Pro		495
	500	505
Thr Met Arg Ala Trp Trp Ala Asn Met Phe Ser Tyr Asp Asn Tyr Glu		510
	515	520
Gly Ser Ala Pro Asn Leu Phe Val Trp Asn Asp Met Asn Glu Pro Ser		525
	530	535
Val Phe Asn Gly Pro Glu Val Thr Met Leu Lys Asp Ala Gln His Tyr		540
545	550	555
Gly Gly Trp Glu His Arg Asp Val His Asn Ile Tyr Gly Leu Tyr Val		560
	565	570
His Met Ala Thr Ala Asp Gly Leu Arg Gln Arg Ser Gly Gly Met Glu		575
	580	585
Arg Pro Phe Val Leu Ala Arg Ala Phe Phe Ala Gly Ser Gln Arg Phe		590
	595	600
Gly Ala Val Trp Thr Gly Asp Asn Thr Ala Glu Trp Asp His Leu Lys		605
	610	615
Ile Ser Ile Pro Met Cys Leu Ser Leu Gly Leu Val Gly Leu Ser Phe		620
625	630	635
Cys Gly Ala Asp Val Gly Gly Phe Phe Lys Asn Pro Glu Pro Glu Leu		640
	645	650
Leu Val Arg Trp Tyr Gln Met Gly Ala Tyr Gln Pro Phe Phe Arg Ala		655
	660	665
His Ala His Leu Asp Thr Gly Arg Arg Glu Pro Trp Leu Leu Pro Ser		670
	675	680
Gln His Asn Asp Ile Ile Arg Asp Ala Leu Gly Gln Arg Tyr Ser Leu		685
	690	695
Leu Pro Phe Trp Tyr Thr Leu Leu Tyr Gln Ala His Arg Glu Gly Ile		700
705	710	715
Pro Val Met Arg Pro Leu Trp Val Gln Tyr Pro Gln Asp Val Thr Thr		720
	725	730
Phe Asn Ile Asp Asp Gln Tyr Leu Leu Gly Asp Ala Leu Leu Val His		735
	740	745
Pro Val Ser Asp Ser Gly Ala His Gly Val Gln Val Tyr Leu Pro Gly		750
	755	760
Gln Gly Glu Val Trp Tyr Asp Ile Gln Ser Tyr Gln Lys His His Gly		765
	770	775
Pro Gln Thr Leu Tyr Leu Pro Val Thr Leu Ser Ser Ile Pro Val Phe		780
785	790	795
Gln Arg Gly Gly Thr Ile Val Pro Arg Trp Met Arg Val Arg Arg Ser		800
	805	810
Ser Glu Cys Met Lys Asp Asp Pro Ile Thr Leu Phe Val Ala Leu Ser		815
	820	825
Pro Gln Gly Thr Ala Gln Gly Glu Leu Phe Leu Asp Asp Gly His Thr		830
	835	840
Phe Asn Tyr Gln Thr Arg Gln Glu Phe Leu Leu Arg Arg Phe Ser Phe		845
850	855	860
Ser Gly Asn Thr Leu Val Ser Ser Ser Ala Asp Pro Glu Gly His Phe		

865		870		875		880
Glu Thr Pro Ile Trp	Ile Glu Arg Val Val	Ile Ile Gly Ala Gly Lys				
	885		890			895
Pro Ala Ala Val Val	Leu Gln Thr Lys Gly Ser Pro	Glu Ser Arg Leu				
	900		905			910
Ser Phe Gln His Asp	Pro Glu Thr Ser Val Leu Val	Leu Arg Lys Pro				
	915		920			925
Gly Ile Asn Val Ala	Ser Asp Trp Ser Ile His Leu Arg					
	930		935		940	941

<210> 3849

<211> 775

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(774)

<223> Xaa = any amino acid or nothing

<400> 3849

Arg Ala Arg Asn Ala	Arg Gly Cys Trp Gly Val Cys Arg Ser Gly Phe	
1	5	10
Ser Ser Ala Val Cys	Gly Ala Ala Arg Met Glu Gln Val Ala Glu Gly	15
	20	25
Ala Arg Val Thr Ala	Val Pro Val Ser Ala Ala Asp Ser Thr Glu Glu	30
	35	40
Leu Ala Glu Val Glu	Glu Gly Val Val Gly Glu Asp Asn Asp	45
	50	55
Ala Ala Ala Arg Gly	Ala Glu Ala Phe Gly Asp Ser Glu Glu Asp Gly	60
	65	70
Glu Asp Val Phe Glu	Val Glu Lys Ile Leu Asp Met Lys Thr Glu Gly	75
	85	90
Gly Lys Val Leu Tyr	Lys Val Arg Trp Lys Gly Tyr Thr Ser Asp Asp	95
	100	105
Asp Thr Trp Glu Pro	Glu Ile His Leu Glu Asp Cys Lys Glu Val Leu	110
	115	120
Leu Glu Phe Arg Lys	Lys Ile Ala Glu Asn Lys Ala Lys Ala Val Arg	125
	130	135
Lys Asp Ile Gln Arg	Leu Ser Leu Asn Asn Asp Ile Phe Glu Ala Asn	140
	145	150
Ser Asp Ser Asp Gln	Gln Ser Glu Thr Lys Glu Asp Thr Ser Pro Lys	155
	165	170
Lys Lys Lys Lys Lys	Leu Arg Gln Arg Glu Glu Lys Ser Pro Asp Asp	175
	180	185
Leu Lys Lys Lys Lys	Ala Lys Ala Gly Lys Leu Lys Asp Lys Ser Lys	190
	195	200
Pro Asp Leu Glu Ser	Ser Leu Glu Ser Leu Val Phe Asp Leu Arg Thr	205
	210	215
Lys Lys Arg Ile Ser	Glu Ala Lys Glu Glu Leu Lys Glu Ser Lys Lys	220
	225	230
Pro Lys Lys Asp Glu	Val Lys Glu Thr Lys Glu Leu Lys Lys Val Lys	235
	245	250
Lys Gly Glu Ile Arg	Asp Leu Lys Thr Lys Thr Arg Glu Asp Pro Lys	255
	260	265
Glu Asn Arg Lys Thr	Lys Lys Glu Lys Phe Val Glu Ser Gln Val Glu	270
	275	280
Ser Glu Ser Ser Val	Leu Asn Asp Ser Pro Phe Pro Glu Asp Asp Ser	285
	290	295
Glu Gly Leu His Ser	Asp Ser Arg Glu Glu Lys Gln Asn Thr Lys Ser	300
	305	310
Ala Arg Glu Arg Ala	Gly Gln Asp Met Gly Leu Glu His Gly Phe Glu	315
		320

				325					330					335		
Lys	Pro	Leu	Asp	Ser	Ala	Met	Ser	Ala	Glu	Glu	Asp	Thr	Asp	Val	Arg	
			340					345					350			
Gly	Arg	Arg	Lys	Lys	Lys	Thr	Pro	Arg	Lys	Ala	Glu	Asp	Thr	Arg	Glu	
		355					360					365				
Asn	Arg	Lys	Leu	Glu	Asn	Lys	Asn	Ala	Phe	Leu	Glu	Lys	Lys	Thr	Val	
	370					375					380					
Pro	Lys	Lys	Gln	Arg	Asn	Gln	Asp	Arg	Ser	Lys	Ser	Ala	Ala	Glu	Leu	
385					390					395					400	
Glu	Lys	Leu	Met	Pro	Val	Ser	Ala	Gln	Thr	Pro	Lys	Gly	Arg	Arg	Leu	
			405					410					415			
Ser	Gly	Glu	Glu	Arg	Gly	Leu	Trp	Ser	Thr	Asp	Ser	Ala	Glu	Glu	Asp	
		420					425					430				
Lys	Glu	Thr	Lys	Arg	Asn	Glu	Ser	Lys	Lys	Pro	Lys	Lys	Asp	Glu	Val	
	435						440					445				
Lys	Glu	Thr	Lys	Glu	Leu	Lys	Lys	Val	Lys	Lys	Gly	Glu	Ile	Arg	Asp	
	450					455					460					
Leu	Lys	Thr	Lys	Thr	Arg	Glu	Asp	Pro	Lys	Glu	Asn	Arg	Lys	Thr	Lys	
465					470					475					480	
Lys	Glu	Lys	Phe	Val	Glu	Ser	Gln	Val	Glu	Ser	Glu	Ser	Ser	Val	Leu	
			485						490					495		
Asn	Asp	Ser	Pro	Phe	Pro	Glu	Asp	Asp	Ser	Glu	Gly	Leu	His	Ser	Asp	
		500						505					510			
Ser	Arg	Glu	Glu	Lys	Gln	Asn	Thr	Lys	Ser	Ala	Arg	Glu	Arg	Ala	Gly	
	515						520					525				
Gln	Asp	Met	Gly	Leu	Glu	His	Gly	Phe	Glu	Lys	Pro	Leu	Asp	Ser	Ala	
	530					535					540					
Met	Ser	Ala	Glu	Glu	Asp	Thr	Asp	Val	Arg	Gly	Arg	Arg	Lys	Lys	Lys	
545					550					555					560	
Thr	Pro	Arg	Lys	Ala	Glu	Asp	Thr	Arg	Glu	Asn	Arg	Lys	Leu	Glu	Asn	
			565						570					575		
Lys	Asn	Ala	Phe	Leu	Glu	Lys	Lys	Thr	Val	Pro	Lys	Lys	Gln	Arg	Asn	
		580						585					590			
Gln	Asp	Arg	Ser	Lys	Ser	Ala	Ala	Glu	Leu	Glu	Lys	Leu	Met	Pro	Val	
	595						600					605				
Ser	Ala	Gln	Thr	Pro	Lys	Gly	Arg	Arg	Leu	Ser	Gly	Glu	Glu	Arg	Gly	
	610					615					620					
Leu	Trp	Ser	Thr	Asp	Ser	Ala	Glu	Glu	Asp	Lys	Glu	Thr	Lys	Arg	Asn	
625					630					635					640	
Glu	Ser	Lys	Lys	Pro	Lys	Lys	Asp	Glu	Val	Lys	Glu	Thr	Lys	Glu	Leu	
			645						650					655		
Lys	Lys	Val	Lys	Lys	Gly	Glu	Ile	Arg	Asp	Leu	Lys	Thr	Lys	Thr	Arg	
		660						665					670			
Glu	Asp	Pro	Lys	Glu	Asn	Arg	Lys	Thr	Lys	Lys	Glu	Lys	Phe	Val	Glu	
	675						680					685				
Ser	Gln	Val	Glu	Ser	Glu	Ser	Ser	Val	Leu	Asn	Asp	Ser	Pro	Phe	Pro	
	690					695					700					
Glu	Asp	Arg	Gln	Xaa	Arg	Ala	Thr	Phe	Arg	Gln	Gln	Arg	Glu	Glu	Lys	
705					710					715					720	
Ser	Pro	Asp	Asp	Leu	Lys	Lys	Lys	Lys	Ala	Lys	Ala	Gly	Lys	Leu	Lys	
			725						730					735		
Asp	Lys	Ser	Lys	Pro	Asp	Leu	Glu	Ser	Ser	Leu	Glu	Ser	Leu	Val	Phe	
		740						745					750			
Asp	Leu	Arg	Thr	Lys	Lys	Arg	Ile	Ser	Glu	Ala	Lys	Glu	Glu	Leu	Lys	
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Glu	Ser	Lys	Lys	Pro	Lys											
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<210> 3850

<211> 955

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(953)

<223> Xaa = any amino acid or nothing

<400> 3850

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Pro Ser Arg Arg Thr Arg Leu Gly Ser Asp Pro Ala Gln Ala Met Ala
          35          40          45
Gly Asn Val Lys Lys Ser Ser Gly Ala Gly Gly Gly Ser Gly Ser Gly
          50          55          60
Gly Ser Gly Ser Gly Gly Leu Ile Gly Leu Met Lys Asp Ala Phe Gln
          65          70          75          80
Pro His His His His His His His Leu Ser Pro His Pro Pro Gly Thr
          85          90          95
Val Asp Lys Lys Met Val Glu Lys Cys Trp Lys Leu Met Asp Lys Val
          100          105          110
Val Arg Leu Cys Gln Asn Pro Lys Leu Ala Leu Lys Asn Ser Pro Pro
          115          120          125
Tyr Ile Leu Asp Leu Leu Pro Asp Thr Tyr Gln His Leu Arg Thr Ile
          130          135          140
Leu Ser Arg Tyr Glu Gly Lys Met Glu Thr Leu Gly Glu Asn Glu Tyr
          145          150          155          160
Phe Arg Val Phe Met Glu Asn Leu Met Lys Lys Thr Lys Gln Thr Ile
          165          170          175
Ser Leu Phe Lys Glu Gly Lys Glu Arg Met Tyr Glu Glu Asn Ser Gln
          180          185          190
Pro Arg Arg Asn Leu Thr Lys Leu Ser Leu Ile Phe Ser His Met Leu
          195          200          205
Ala Glu Leu Lys Gly Ile Phe Pro Ser Gly Leu Phe Gln Gly Asp Thr
          210          215          220
Phe Arg Ile Thr Lys Ala Asp Ala Ala Glu Phe Trp Arg Lys Ala Phe
          225          230          235          240
Gly Glu Lys Thr Ile Val Pro Trp Lys Ser Phe Arg Gln Ala Leu His
          245          250          255
Glu Val His Pro Ile Ser Ser Gly Leu Glu Ala Met Ala Leu Lys Ser
          260          265          270
Thr Ile Asp Leu Thr Cys Asn Asp Tyr Ile Ser Val Phe Glu Phe Asp
          275          280          285
Ile Phe Thr Arg Leu Phe Gln Pro Trp Ser Ser Leu Leu Arg Asn Trp
          290          295          300
Asn Ser Leu Ala Val Thr His Pro Gly Tyr Met Ala Phe Leu Thr Tyr
          305          310          315          320
Asp Glu Val Lys Ala Arg Leu Gln Lys Phe Ile His Lys Pro Gly Ser
          325          330          335
Tyr Ile Phe Arg Leu Ser Cys Thr Arg Leu Gly Gln Trp Ala Ile Gly
          340          345          350
Tyr Val Thr Ala Asp Gly Asn Ile Leu Gln Thr Ile Pro His Asn Lys
          355          360          365
Pro Leu Phe Gln Ala Leu Ile Asp Gly Phe Arg Glu Gly Phe Tyr Leu
          370          375          380
Phe Pro Asp Gly Arg Asn Gln Asn Pro Asp Leu Thr Gly Leu Cys Glu
          385          390          395          400
Pro Thr Pro Gln Asp His Ile Lys Val Thr Gln Glu Gln Tyr Glu Leu
          405          410          415
Tyr Cys Glu Met Gly Ser Thr Phe Gln Leu Cys Lys Ile Cys Ala Glu
          420          425          430
Asn Asp Lys Asp Val Lys Ile Glu Pro Cys Gly His Leu Met Cys Thr
          435          440          445
Ser Cys Leu Thr Ser Trp Gln Glu Ser Glu Gly Gln Gly Cys Pro Phe

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450						455						460					
Cys	Arg	Cys	Glu	Ile	Lys	Gly	Thr	Glu	Pro	Ile	Val	Val	Asp	Pro	Phe		
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Asp	Pro	Arg	Gly	Ser	Gly	Ser	Leu	Leu	Arg	Gln	Gly	Ala	Glu	Gly	Ala		
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Pro	Ser	Pro	Asn	Tyr	Asp	Asp	Asp	Asp	Asp	Glu	Arg	Ala	Asp	Asp	Thr		
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Leu	Phe	Met	Met	Lys	Glu	Leu	Ala	Gly	Ala	Lys	Val	Glu	Arg	Pro	Pro		
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Ser	Pro	Phe	Ser	Met	Ala	Pro	Gln	Ala	Ser	Leu	Pro	Pro	Val	Pro	Pro		
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Arg	Leu	Asp	Leu	Leu	Pro	Gln	Arg	Val	Cys	Val	Pro	Ser	Ser	Ala	Ser		
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Ala	Leu	Gly	Thr	Ala	Ser	Lys	Ala	Ala	Ser	Gly	Ser	Leu	His	Lys	Asp		
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Lys	Pro	Leu	Pro	Val	Pro	Pro	Thr	Leu	Arg	Asp	Leu	Pro	Pro	Pro	Pro		
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Pro	Pro	Asp	Arg	Pro	Tyr	Ser	Val	Gly	Ala	Glu	Ser	Arg	Pro	Gln	Arg		
		595					600						605				
Arg	Pro	Leu	Pro	Cys	Thr	Pro	Gly	Asp	Cys	Pro	Ser	Arg	Asp	Lys	Leu		
	610					615							620				
Pro	Pro	Val	Pro	Ser	Ser	Arg	Leu	Gly	Asp	Ser	Trp	Leu	Pro	Arg	Pro		
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Ile	Pro	Lys	Val	Pro	Val	Ser	Ala	Pro	Ser	Ser	Ser	Asp	Pro	Trp	Thr		
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Gly	Arg	Glu	Leu	Thr	Asn	Arg	His	Ser	Leu	Pro	Phe	Ser	Leu	Pro	Ser		
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Gln	Met	Glu	Pro	Arg	Pro	Asp	Val	Pro	Arg	Leu	Gly	Ser	Thr	Phe	Ser		
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Leu	Asp	Thr	Ser	Met	Ser	Met	Asn	Ser	Ser	Pro	Leu	Val	Gly	Pro	Glu		
	690					695							700				
Cys	Asp	His	Pro	Lys	Ile	Lys	Pro	Ser	Ser	Ser	Ala	Asn	Ala	Ile	Tyr		
705					710					715					720		
Ser	Leu	Ala	Ala	Arg	Pro	Leu	Pro	Val	Pro	Lys	Leu	Pro	Pro	Gly	Glu		
				725					730					735			
Gln	Cys	Glu	Gly	Glu	Glu	Asp	Thr	Glu	Tyr	Met	Thr	Pro	Ser	Ser	Arg		
			740					745						750			
Pro	Leu	Arg	Pro	Leu	Asp	Thr	Ser	Gln	Ser	Ser	Arg	Ala	Cys	Asp	Cys		
		755					760						765				
Asp	Gln	Gln	Ile	Asp	Ser	Cys	Thr	Tyr	Glu	Ala	Met	Tyr	Asn	Ile	Gln		
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Ser	Gln	Ala	Pro	Ser	Ile	Thr	Glu	Ser	Ser	Thr	Phe	Gly	Glu	Gly	Asn		
785					790					795					800		
Leu	Ala	Ala	Ala	His	Ala	Asn	Thr	Gly	Pro	Glu	Glu	Ser	Glu	Asn	Glu		
				805					810					815			
Asp	Asp	Gly	Tyr	Asp	Val	Pro	Lys	Pro	Pro	Val	Pro	Ala	Val	Leu	Ala		
			820					825						830			
Arg	Arg	Thr	Leu	Ser	Asp	Ile	Ser	Asn	Ala	Ser	Ser	Ser	Phe	Gly	Leu		
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Phe	Val	Leu	Glu	Arg	Asp	Pro	Xaa	Pro	Gln	Asn	Val	Thr	Glu	Gly	Ser		
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Gln	Val	Pro	Glu	Arg	Pro	Pro	Lys	Pro	Phe	Pro	Arg	Arg	Ile	Asn	Ser		
865					870					875					880		
Glu	Arg	Lys	Ala	Gly	Ser	Cys	Gln	Gln	Gly	Ser	Gly	Pro	Ala	Ala	Ser		
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Ala	Ala	Thr	Ala	Ser	Pro	Gln	Leu	Ser	Ser	Glu	Ile	Glu	Asn	Leu	Met		
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Ser	Gln	Gly	Tyr	Ser	Tyr	Gln	Asp	Ile	Gln	Lys	Ala	Leu	Val	Ile	Ala		
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Gln	Asn	Asn	Ile	Glu	Met	Ala	Lys	Asn	Ile	Leu	Arg	Glu	Phe	Val	Ser		
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Ile	Ser	Ser	Pro	Ala	His	Val	Ala	Thr									
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<210> 3851
 <211> 932
 <212> PRT
 <213> Homo sapiens

<221> misc_feature
 <222> (1)...(923)
 <223> Xaa = any amino acid or nothing

<400> 3851
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 Leu Gly Ser Ala Thr Gly Arg Ser Lys Ser Ser Glu Lys Arg Gln Ala
 35 40 45
 Val Asp Thr Ala Val Asp Gly Val Phe Ile Arg Ser Leu Lys Val Asn
 50 55 60
 Cys Lys Val Thr Ser Arg Phe Ala His Tyr Val Val Thr Ser Gln Val
 65 70 75 80
 Val Asn Thr Ala Asn Glu Ala Arg Glu Val Ala Phe Asp Leu Glu Ile
 85 90 95
 Pro Lys Thr Ala Phe Ile Ser Asp Phe Ala Val Thr Ala Asp Gly Asn
 100 105 110
 Ala Phe Ile Gly Asp Ile Lys Asp Lys Val Thr Ala Trp Lys Gln Tyr
 115 120 125
 Arg Lys Ala Ala Ile Ser Gly Glu Asn Ala Gly Leu Val Arg Ala Ser
 130 135 140
 Gly Arg Thr Met Glu Gln Phe Thr Ile His Leu Thr Val Asn Pro Gln
 145 150 155 160
 Ser Lys Val Thr Phe Gln Leu Thr Tyr Glu Glu Val Leu Lys Arg Asn
 165 170 175
 His Met Gln Tyr Glu Ile Val Ile Lys Val Lys Pro Lys Gln Leu Val
 180 185 190
 His His Phe Glu Ile Asp Val Asp Ile Phe Glu Pro Gln Gly Ile Ser
 195 200 205
 Lys Leu Asp Ala Gln Ala Ser Phe Leu Pro Lys Glu Leu Ala Ala Gln
 210 215 220
 Thr Ile Lys Lys Ser Phe Ser Gly Lys Lys Gly His Val Leu Phe Arg
 225 230 235 240
 Pro Thr Val Ser Gln Gln Gln Ser Cys Pro Thr Cys Ser Thr Ser Leu
 245 250 255
 Leu Asn Gly His Phe Lys Val Thr Tyr Asp Val Ser Arg Asp Lys Ile
 260 265 270
 Cys Asp Leu Leu Val Ala Asn Asn His Phe Ala His Phe Phe Ala Pro
 275 280 285
 Gln Asn Leu Thr Asn Met Asn Lys Asn Val Val Phe Val Ile Asp Ile
 290 295 300
 Ser Gly Ser Met Arg Gly Gln Lys Val Lys Gln Thr Lys Glu Ala Leu
 305 310 315 320
 Leu Lys Ile Leu Gly Asp Met Gln Pro Gly Asp Tyr Phe Asp Leu Val
 325 330 335
 Leu Phe Gly Thr Arg Val Gln Ser Trp Lys Gly Ser Leu Val Gln Ala
 340 345 350
 Ser Glu Ala Asn Leu Gln Ala Ala Gln Asp Phe Val Arg Gly Phe Ser
 355 360 365
 Leu Asp Glu Ala Thr Asn Leu Asn Gly Gly Leu Leu Arg Gly Ile Glu
 370 375 380
 Ile Leu Asn Gln Val Gln Glu Ser Leu Pro Glu Leu Ser Asn His Ala
 385 390 395 400
 Ser Ile Leu Ile Met Leu Thr Asp Gly Asp Pro Thr Glu Gly Val Thr

405																410																415															
Asp	Arg	Ser	Gln	Ile	Leu	Lys	Asn	Val	Arg	Asn	Ala	Ile	Arg	Gly	Arg																																
420																425																430															
Phe	Pro	Leu	Tyr	Asn	Leu	Gly	Phe	Gly	His	Asn	Val	Asp	Phe	Asn	Phe																																
435																440																445															
Leu	Glu	Val	Met	Ser	Met	Glu	Asn	Asn	Gly	Arg	Ala	Gln	Arg	Ile	Tyr																																
450																455																460															
Glu	Asp	His	Asp	Ala	Thr	Gln	Gln	Leu	Gln	Gly	Phe	Tyr	Ser	Gln	Val																																
465																470																475															
Ala	Lys	Pro	Leu	Leu	Val	Asp	Val	Asp	Leu	Gln	Tyr	Pro	Gln	Asp	Ala																																
485																490																495															
Val	Leu	Ala	Leu	Thr	Gln	Asn	His	His	Lys	Gln	Tyr	Tyr	Glu	Gly	Ser																																
500																505																510															
Glu	Ile	Val	Val	Ala	Gly	Arg	Ile	Ala	Asp	Asn	Lys	Gln	Ser	Ser	Phe																																
515																520																525															
Lys	Ala	Asp	Val	Gln	Ala	His	Gly	Glu	Gly	Gln	Glu	Phe	Ser	Ile	Thr																																
530																535																540															
Cys	Leu	Val	Asp	Glu	Glu	Glu	Met	Lys	Lys	Leu	Leu	Arg	Glu	Arg	Gly																																
545																550																555															
His	Met	Leu	Glu	Asn	His	Val	Glu	Arg	Leu	Trp	Ala	Tyr	Leu	Thr	Ile																																
565																570																575															
Gln	Glu	Leu	Leu	Ala	Lys	Arg	Met	Lys	Val	Asp	Arg	Glu	Val	Arg	Ala																																
580																585																590															
Asn	Leu	Ser	Ser	Gln	Ala	Leu	Arg	Met	Ser	Leu	Asp	Tyr	Gly	Phe	Val																																
595																600																605															
Thr	Pro	Leu	Thr	Ser	Met	Ser	Ile	Arg	Gly	Met	Ala	Asp	Gln	Asp	Gly																																
610																615																620															
Leu	Lys	Pro	Thr	Ile	Asp	Lys	Pro	Ser	Glu	Asp	Ser	Pro	Pro	Leu	Glu																																
625																630																635															
Met	Leu	Gly	Pro	Arg	Arg	Thr	Phe	Val	Leu	Ser	Ala	Leu	Gln	Pro	Ser																																
645																650																655															
Pro	Thr	His	Ser	Ser	Ser	Asn	Thr	Gln	Arg	Leu	Pro	Asp	Arg	Val	Thr																																
660																665																670															
Gly	Val	Asp	Thr	Asp	Pro	His	Phe	Ile	Ile	His	Val	Pro	Gln	Lys	Glu																																
675																680																685															
Asp	Thr	Leu	Cys	Phe	Asn	Ile	Asn	Glu	Glu	Pro	Gly	Val	Ile	Leu	Ser																																
690																695																700															
Leu	Val	Gln	Asp	Pro	Asn	Thr	Gly	Phe	Ser	Val	Asn	Gly	Gln	Leu	Ile																																
705																710																715															
Gly	Asn	Lys	Ala	Arg	Ser	Pro	Gly	Gln	His	Asp	Gly	Thr	Tyr	Phe	Gly																																
725																730																735															
Arg	Leu	Gly	Ile	Ala	Asn	Pro	Ala	Thr	Asp	Phe	Gln	Leu	Glu	Val	Thr																																
740																745																750															
Pro	Gln	Asn	Ile	Thr	Leu	Asn	Pro	Gly	Phe	Gly	Gly	Pro	Val	Phe	Ser																																
755																760																765															
Trp	Arg	Asp	Gln	Ala	Val	Leu	Arg	Gln	Asp	Gly	Val	Val	Val	Thr	Ile																																
770																775																780															
Asn	Lys	Lys	Arg	Asn	Leu	Val	Val	Ser	Val	Asp	Asp	Gly	Gly	Thr	Phe																																
785																790																795															
Glu	Val	Val	Leu	His	Arg	Val	Trp	Lys	Gly	Ser	Ser	Val	His	Gln	Asp																																
805																810																815															
Phe	Leu	Gly	Leu	Leu	Met	Cys	Trp	Asp	Lys	Ser	Ile	Gly	Met	Ser	Ser																																
820																825																830															
Pro	Gly	Arg	Lys	Gly	Cys	Trp	Gly	Gln	Phe	Phe	His	Pro	Ile	Arg	Phe																																
835																840																845															
Leu	Lys	Val	Ser	Xaa	His	Pro	Pro	Pro	Gly	Ser	Asp	Pro	Gln	Lys	Ala																																
850																855																860															
Gln	Met	Pro	Thr	Met	Val	Val	Arg	Asn	Pro	Pro	Gly	Leu	Thr	Val	Thr																																
865																870																875															
Arg	Gly	Leu	Gln	Lys	Asp	Tyr	Ser	Lys	Asp	Pro	Trp	His	Gly	Ala	Glu																																
885																890																895															
Val	Ser	Cys	Trp	Phe	Ile	His	Asn	Asn	Gly	Ala	Xaa	Ile	Thr	Asp	Cys																																
900																905																910															
Ala	Tyr	Thr	Asp	Tyr	Ile	Val	Pro	Asp	Ile	Phe																																					

915

920

923

<210> 3852

<211> 566

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(564)

<223> Xaa = any amino acid or nothing

<400> 3852

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          20          25          30
Ser Phe Gly Gln Asn Tyr Pro Glu Glu Ala Asp Gly Thr Leu Asp Cys
          35          40          45
Ile Ser Met Ala Leu Thr Cys Thr Phe Asn Arg Trp Gly Thr Leu Leu
          50          55          60
Ala Val Gly Cys Asn Asp Gly Arg Ile Val Ile Trp Asp Phe Leu Thr
          65          70          75          80
Arg Gly Ile Ala Xaa Asn Lys Phe Ser Ala His Ile His Pro Val Cys
          85          90          95
Ser Leu Cys Trp Ser Arg Asp Gly His Lys Leu Val Ser Ala Ser Thr
          100          105          110
Asp Asn Ile Val Ser Gln Trp Asp Val Leu Ser Gly Asp Cys Asp Gln
          115          120          125
Arg Phe Arg Phe Pro Ser Pro Ile Leu Lys Val Gln Tyr His Pro Arg
          130          135          140
Asp Gln Asn Lys Val Leu Val Cys Pro Met Lys Ser Ala Pro Val Met
          145          150          155          160
Leu Thr Leu Ser Asp Ser Lys His Val Val Leu Pro Val Asp Asp Asp
          165          170          175
Ser Asp Leu Asn Val Val Ala Ser Phe Asp Arg Arg Gly Glu Tyr Ile
          180          185          190
Tyr Thr Gly Asn Ala Lys Gly Lys Ile Leu Val Leu Lys Thr Asp Ser
          195          200          205
Gln Asp Leu Val Ala Ser Phe Arg Val Thr Thr Gly Thr Ser Asn Thr
          210          215          220
Thr Ala Ile Lys Ser Ile Glu Phe Ala Arg Lys Gly Ser Cys Phe Leu
          225          230          235          240
Ile Asn Thr Ala Asp Arg Ile Ile Arg Val Tyr Asp Gly Arg Glu Ile
          245          250          255
Leu Thr Cys Gly Arg Asp Gly Glu Pro Glu Pro Met Gln Lys Leu Gln
          260          265          270
Asp Leu Val Asn Arg Thr Pro Trp Lys Lys Cys Cys Phe Ser Gly Asp
          275          280          285
Gly Glu Tyr Ile Val Ala Gly Ser Ala Arg Gln His Ala Leu Tyr Ile
          290          295          300
Trp Glu Lys Ser Ile Gly Asn Leu Val Lys Ile Leu His Gly Thr Arg
          305          310          315          320
Gly Glu Leu Leu Leu Asp Val Ala Trp His Pro Val Arg Pro Ile Ile
          325          330          335
Ala Ser Ile Ser Ser Gly Val Val Ser Ile Trp Ala Gln Asn Gln Val
          340          345          350
Glu Asn Trp Ser Ala Phe Ala Pro Asp Phe Lys Glu Leu Asp Glu Asn
          355          360          365
Val Glu Tyr Glu Glu Arg Glu Ser Glu Phe Asp Ile Glu Asp Glu Asp
          370          375          380
Lys Ser Glu Pro Glu Gln Thr Gly Ala Asp Ala Ala Glu Asp Glu Glu

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385          390          395          400
Val Asp Val Thr Ser Val Asp Pro Ile Ala Ala Phe Cys Ser Ser Asp
          405          410          415
Glu Glu Leu Glu Asp Ser Lys Ala Leu Leu Tyr Leu Pro Ile Ala Pro
          420          425          430
Glu Val Glu Asp Pro Glu Glu Asn Pro Tyr Gly Pro Pro Pro Asp Ala
          435          440          445
Val Gln Thr Ser Leu Met Asp Glu Gly Ala Ser Ser Glu Lys Lys Arg
          450          455          460
Gln Ser Ser Ala Asp Gly Ser Gln Pro Pro Lys Lys Lys Pro Lys Thr
465          470          475          480
Thr Asn Ile Glu Leu Gln Gly Val Pro Asn Asp Glu Val His Pro Leu
          485          490          495
Leu Gly Val Lys Gly Asp Gly Lys Ser Lys Lys Lys Gln Ala Gly Arg
          500          505          510
Pro Lys Gly Ser Lys Gly Lys Glu Lys Asp Ser Pro Phe Lys Pro Lys
          515          520          525
Leu Tyr Lys Gly Asp Arg Gly Leu Pro Leu Glu Gly Ser Ala Lys Gly
          530          535          540
Lys Val Gln Ala Glu Leu Ser Gln Pro Leu Thr Ala Gly Gly Ala Ile
545          550          555          560
Ser Glu Leu Leu
          564

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<210> 3853

<211> 854

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(852)

<223> Xaa = any amino acid or nothing

<400> 3853

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Pro Leu Leu Phe Thr Cys Gly Arg Glu Val Arg Ala Arg Asp Pro Glu
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Lys Glu Gly Thr Ile Val Val Ala Gly Leu Lys Val Gln Val Gln Pro
          20          25          30
Arg Phe Leu Trp Ile Leu Cys Phe Ser Met Glu Glu Thr Gln Gly Glu
          35          40          45
Leu Thr Ser Ser Cys Gly Ser Lys Thr Met Ala Asn Val Ser Leu Ala
          50          55          60
Phe Arg Asp Val Ser Ile Asp Leu Ser Gln Glu Glu Trp Glu Cys Leu
          65          70          75          80
Asp Ala Val Gln Arg Asp Leu Tyr Lys Asp Val Met Leu Glu Asn Tyr
          85          90          95
Ser Asn Leu Val Ser Leu Asp Leu Glu Tyr Lys Tyr Ile Thr Lys Asn
          100          105          110
Leu Leu Ser Glu Lys Asn Val Cys Lys Ile Tyr Leu Ser Gln Leu Gln
          115          120          125
Thr Gly Glu Lys Ser Lys Asn Thr Ile His Glu Asp Thr Ile Phe Arg
          130          135          140
Asn Gly Leu Gln Cys Lys His Glu Phe Glu Arg Gln Glu Arg His Gln
          145          150          155          160
Met Gly Cys Val Ser Gln Met Leu Ile Gln Lys Gln Ile Ser His Pro
          165          170          175
Leu His Pro Lys Ile His Ala Arg Glu Lys Ser Tyr Glu Cys Lys Glu
          180          185          190
Cys Arg Lys Ala Phe Arg Gln Gln Ser Tyr Leu Ile Gln His Leu Arg
          195          200          205
Ile His Thr Gly Glu Arg Pro Tyr Lys Cys Met Glu Cys Gly Lys Ala

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210	215	220
Phe Cys Arg Val Gly Asp	Leu Arg Val His His	Thr Ile His Ala Gly
225	230	235
Glu Arg Pro Tyr Glu Cys	Lys Glu Cys Gly Lys	Ala Phe Arg Leu His
245	250	255
Tyr His Leu Thr Glu His	Gln Arg Ile His Ser	Gly Val Lys Pro Tyr
260	265	270
Glu Cys Lys Glu Cys Gly	Lys Ala Phe Ser Arg	Val Arg Asp Leu Arg
275	280	285
Val His Gln Thr Ile His	Ala Gly Glu Arg Pro	Tyr Glu Cys Lys Glu
290	295	300
Cys Gly Lys Ala Phe Arg	Leu His Tyr Gln Leu	Thr Glu His Gln Arg
305	310	315
Ile His Thr Gly Glu Arg	Pro Tyr Glu Cys Lys	Val Cys Gly Lys Thr
325	330	335
Phe Arg Val Gln Arg His	Ile Ser Gln His Gln	Lys Ile His Thr Gly
340	345	350
Val Lys Pro Tyr Lys Cys	Asn Glu Cys Gly Lys	Ala Phe Ser His Gly
355	360	365
Ser Tyr Leu Val Gln His	Gln Lys Ile His Thr	Gly Glu Lys Pro Tyr
370	375	380
Glu Cys Lys Glu Cys Gly	Lys Ser Phe Ser Phe	His Ala Glu Leu Ala
385	390	395
Arg His Arg Arg Ile His	Thr Gly Glu Lys Pro	Tyr Glu Cys Arg Glu
405	410	415
Cys Gly Lys Ala Phe Arg	Leu Gln Thr Glu Leu	Thr Arg His His Arg
420	425	430
Thr His Thr Gly Glu Lys	Pro Tyr Glu Cys Lys	Glu Cys Gly Lys Ala
435	440	445
Phe Ile Cys Gly Tyr Gln	Leu Thr Leu His Leu	Arg Thr His Thr Gly
450	455	460
Glu Ile Pro Tyr Glu Cys	Lys Glu Cys Gly Lys	Thr Phe Ser Ser Arg
465	470	475
Tyr His Leu Thr Gln His	Tyr Arg Ile His Thr	Gly Glu Lys Pro Tyr
485	490	495
Ile Cys Asn Glu Cys Gly	Lys Ala Phe Arg Leu	Gln Gly Glu Leu Thr
500	505	510
Arg His His Arg Ile His	Thr Cys Glu Lys Pro	Tyr Glu Cys Lys Glu
515	520	525
Cys Gly Lys Ala Phe Ile	His Ser Asn Gln Phe	Ile Ser His Gln Arg
530	535	540
Ile His Thr Ser Glu Ser	Thr Tyr Ile Cys Lys	Glu Cys Gly Lys Ile
545	550	555
Phe Ser Arg Arg Tyr Asn	Leu Thr Gln His Phe	Lys Ile His Thr Gly
565	570	575
Glu Lys Pro Tyr Ile Cys	Asn Glu Cys Gly Lys	Ala Phe Arg Phe Gln
580	585	590
Thr Glu Leu Thr Gln His	His Arg Ile His Thr	Gly Glu Lys Pro Tyr
595	600	605
Lys Cys Thr Glu Cys Gly	Lys Ala Phe Ile Arg	Ser Thr His Leu Thr
610	615	620
Gln His His Arg Ile His	Thr Gly Glu Lys Pro	Tyr Glu Cys Thr Glu
625	630	635
Cys Gly Lys Thr Phe Ser	Arg His Tyr His Leu	Thr Gln His His Arg
645	650	655
Gly His Thr Gly Glu Lys	Pro Tyr Ile Cys Asn	Glu Cys Gly Asn Ala
660	665	670
Phe Ile Cys Ser Tyr Arg	Leu Thr Leu His Gln	Arg Ile His Thr Gly
675	680	685
Glu Leu Pro Tyr Glu Cys	Lys Glu Cys Gly Lys	Thr Phe Ser Arg Arg
690	695	700
Tyr His Leu Thr Gln His	Phe Arg Leu His Thr	Gly Glu Lys Pro Tyr
705	710	715
Ser Cys Lys Glu Cys Gly	Asn Ala Phe Arg Leu	Gln Ala Glu Leu Thr

				725						730					735				
Arg	His	His	Ile	Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Lys	Glu				
			740					745					750						
Cys	Gly	Lys	Ala	Phe	Ser	Val	Asn	Ser	Glu	Leu	Thr	Arg	His	His	Arg				
		755					760					765							
Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Gln	Cys	Lys	Glu	Cys	Gly	Lys	Ala				
	770					775					780								
Phe	Ile	Arg	Ser	Asp	Gln	Leu	Thr	Leu	His	Gln	Lys	Ile	Ile	Leu	Val				
785					790				795						800				
Arg	Asn	Pro	Met	His	Asn	Val	Lys	Arg	Ile	Arg	Trp	Pro	Leu	Glu	Asn				
			805						810					815					
Ala	Leu	Xaa	Gln	Arg	Ile	Cys	Asn	Leu	Arg	Asn	Phe	Leu	Phe	Val	Thr				
		820						825					830						
Glu	His	Val	Gly	Ile	Pro	Phe	Thr	Ser	Cys	Ser	Gln	Phe	Ile	Arg	Asn				
	835						840					845							
Tyr	Phe	Val	Cys																
	850		852																

<210> 3854

<211> 344

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(343)

<223> Xaa = any amino acid or nothing

<400> 3854

Leu	Gln	Ser	Cys	Trp	Val	Pro	Gly	Ile	Pro	Trp	Pro	Ser	Val	Gly	Trp				
1				5					10					15					
Leu	Ser	Trp	Leu	Lys	Asp	Leu	Pro	Ser	Cys	Glu	Ile	His	Ser	Ala	Ser				
		20					25					30							
Leu	Ser	Ala	Val	Leu	Gln	Gly	Pro	Gln	Cys	Ser	Glu	Met	Leu	Trp	Pro				
	35					40					45								
Lys	Asn	Leu	Thr	Ser	Trp	Asp	Asp	Ser	Ser	Ser	Val	Ser	Ser	Gly	Ile				
	50				55						60								
Ser	Asp	Thr	Ile	Asp	Asn	Leu	Ser	Thr	Asp	Asp	Ile	Asn	Thr	Ser	Ser				
65				70					75					80					
Ser	Ile	Ser	Ser	Tyr	Ala	Asn	Thr	Pro	Ala	Ser	Ser	Arg	Lys	Asn	Leu				
		85				90							95						
Asp	Val	Gln	Thr	Asp	Ala	Glu	Lys	His	Ser	Gln	Val	Glu	Arg	Asn	Ser				
	100					105						110							
Leu	Trp	Ser	Gly	Asp	Asp	Val	Lys	Lys	Ser	Asp	Gly	Gly	Ser	Asp	Ser				
	115					120					125								
Gly	Ile	Lys	Met	Glu	Pro	Gly	Ser	Lys	Trp	Arg	Arg	Asn	Pro	Ser	Asp				
	130					135				140									
Val	Ser	Asp	Glu	Ser	Asp	Lys	Ser	Thr	Ser	Gly	Lys	Lys	Asn	Pro	Val				
145				150					155					160					
Ile	Ser	Gln	Thr	Gly	Ser	Trp	Arg	Arg	Gly	Met	Thr	Ala	Gln	Val	Gly				
		165				170							175						
Ile	Thr	Met	Pro	Arg	Thr	Lys	Ala	Ser	Ala	Pro	Ala	Gly	Ala	Leu	Lys				
	180					185						190							
Thr	Pro	Gly	Thr	Gly	Lys	Arg	Pro	Gly	Leu	Ser	Gly	Pro	Gly	Ala	Pro				
	195					200						205							
Thr	Pro	Ala	Ala	Pro	Pro	Gln	Leu	Ala	Arg	Met	Ala	Trp	Ala	Phe	Ser				
	210					215					220								
Leu	Ser	Ala	Ala	Ser	Thr	Pro	Ala	Val	Ser	Pro	Ser	Thr	Ser	Pro	Ser				
225				230					235					240					
Ala	Val	Glu	Gly	Ser	Pro	Ala	Thr	Ile	Leu	Pro	Leu	Ala	Ser	Ser	Pro				
		245						250					255						
Pro	Pro	Arg	Thr	Thr	Pro	Xaa	Leu	Pro	Leu	Ser	Glu	Leu	Thr	Val	Xaa				

		260					265					270			
Arg	Pro	Gln	Glu	Leu	Val	Arg	Gly	Arg	Gly	Cys	Leu	Gly	Pro	Gly	Ala
		275					280					285			
Pro	Thr	Pro	Ala	Ala	Pro	Pro	Gln	Leu	Ala	Arg	Met	Ala	Trp	Ala	Phe
		290					295					300			
Ser	Leu	Ser	Ala	Ala	Ser	Thr	Pro	Ala	Val	Ser	Pro	Ser	Thr	Ser	Pro
305					310					315					320
Ser	Ala	Val	Glu	Gly	Ser	Pro	Ala	Thr	Ile	Leu	Pro	Leu	Ala	Ser	Ser
			325						330					335	
Pro	Pro	Pro	Arg	Thr	Thr	Pro									
			340			343									

<210> 3855

<211> 260

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(255)

<223> Xaa = any amino acid or nothing

Phe	Arg	Gly	Gly	Asp	Gly	Ala	Pro	Gly	Val	Leu	Lys	Pro	Gly	Asn	Pro
1				5					10					15	
Leu	Pro	Phe	Pro	Leu	Pro	Pro	Leu	Gln	Tyr	Pro	Pro	Pro	Ser	Thr	Leu
			20					25					30		
Ser	His	Ser	Asp	Asn	Leu	Ala	Met	Thr	Ser	Arg	Ser	Thr	Ala	Arg	Pro
		35					40					45			
Asn	Gly	Gln	Pro	Gln	Ala	Ser	Lys	Ile	Cys	Gln	Phe	Lys	Leu	Val	Leu
50					55					60					
Leu	Gly	Glu	Ser	Ala	Val	Gly	Lys	Ser	Ser	Leu	Val	Leu	Arg	Phe	Val
65					70					75					80
Lys	Gly	Gln	Phe	His	Glu	Tyr	Gln	Glu	Ser	Thr	Ile	Gly	Ala	Ala	Phe
				85					90					95	
Leu	Thr	Gln	Ser	Val	Cys	Leu	Asp	Asp	Thr	Thr	Val	Lys	Phe	Glu	Ile
			100					105					110		
Trp	Asp	Thr	Ala	Gly	Gln	Glu	Arg	Tyr	His	Ser	Leu	Ala	Pro	Met	Tyr
		115					120					125			
Tyr	Arg	Gly	Ala	Gln	Ala	Ala	Ile	Val	Val	Tyr	Asp	Ile	Thr	Asn	Gln
130						135					140				
Glu	Thr	Phe	Ala	Arg	Ala	Lys	Thr	Trp	Val	Lys	Glu	Leu	Gln	Arg	Gln
145					150					155					160
Ala	Ser	Pro	Ser	Ile	Val	Val	Gly	Leu	Ala	Gly	Asn	Lys	Ala	Asp	Leu
				165				170					175		
Ala	Asn	Lys	Arg	Met	Val	Glu	Tyr	Glu	Glu	Ala	Gln	Ala	Tyr	Ala	Asp
			180					185					190		
Asp	Asn	Ser	Leu	Leu	Phe	Met	Glu	Thr	Ser	Ala	Lys	Thr	Ala	Met	Asn
		195					200					205			
Val	Asn	Asp	Leu	Phe	Leu	Ala	Ile	Ala	Xaa	Glu	Val	Ala	Lys	Arg	Val
210						215						220			
Asn	Pro	Gln	Asn	Leu	Gly	Gly	Ala	Ala	Gly	Arg	Ser	Arg	Gly	Val	Asp
225				230						235					240
Leu	His	Glu	Gln	Ser	Gln	Gln	Asn	Lys	Ser	Gln	Cys	Cys	Ser	Asn	
				245					250					255	

<210> 3856

<211> 826

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(817)

<223> Xaa = any amino acid or nothing

<400> 3856

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Leu Gly Leu Glu Ala Ala Ala Arg Pro Arg Pro Gly Gly Pro Ala Ala
 1      5      10      15
Met Gln Asp Gly Asn Phe Leu Leu Ser Ala Leu Gln Pro Glu Ala Gly
 20      25      30
Val Cys Ser Leu Ala Leu Pro Ser Asp Leu Gln Leu Asp Arg Arg Gly
 35      40      45
Ala Glu Gly Pro Glu Ala Glu Arg Leu Arg Ala Ala Arg Val Gln Glu
 50      55      60
Gln Val Arg Ala Arg Leu Leu Gln Leu Gly Gln Gln Pro Arg His Asn
 65      70      75      80
Gly Ala Ala Glu Pro Glu Pro Glu Ala Glu Thr Ala Arg Gly Thr Ser
 85      90      95
Arg Gly Gln Tyr His Thr Leu Gln Ala Gly Phe Ser Ser Arg Ser Gln
 100     105     110
Gly Leu Ser Gly Asp Lys Thr Ser Gly Phe Arg Pro Ile Ala Lys Pro
 115     120     125
Ala Tyr Ser Pro Ala Ser Trp Ser Ser Arg Ser Ala Val Asp Leu Ser
 130     135     140
Cys Ser Arg Arg Leu Ser Ser Ala His Asn Gly Gly Ser Ala Phe Gly
 145     150     155     160
Ala Ala Gly Tyr Gly Gly Ala Gln Pro Thr Pro Pro Met Pro Thr Arg
 165     170     175
Pro Val Ser Phe His Glu Arg Gly Gly Val Gly Ser Arg Ala Asp Tyr
 180     185     190
Asp Thr Leu Ser Leu Arg Ser Leu Arg Leu Gly Pro Gly Gly Leu Asp
 195     200     205
Asp Arg Tyr Ser Leu Val Ser Glu Gln Leu Glu Pro Ala Ala Thr Ser
 210     215     220
Thr Tyr Arg Ala Phe Ala Tyr Glu Arg Gln Ala Ser Ser Ser Ser Ser
 225     230     235     240
Arg Ala Gly Gly Leu Asp Trp Pro Glu Ala Thr Glu Val Ser Pro Ser
 245     250     255
Arg Thr Ile Arg Ala Pro Ala Val Arg Thr Leu Gln Arg Phe Gln Ser
 260     265     270
Ser His Arg Ser Arg Gly Val Gly Gly Ala Val Pro Gly Ala Val Leu
 275     280     285
Glu Pro Val Ala Arg Ala Pro Ser Val Arg Ser Leu Ser Leu Ser Leu
 290     295     300
Ala Asp Ser Gly His Leu Pro Asp Val His Gly Phe Asn Ser Tyr Gly
 305     310     315     320
Ser His Arg Thr Leu Gln Arg Leu Ser Ser Gly Phe Asp Asp Ile Asp
 325     330     335
Leu Pro Ser Ala Val Lys Tyr Leu Met Ala Ser Asp Pro Asn Leu Gln
 340     345     350
Val Leu Gly Ala Ala Tyr Ile Gln His Lys Cys Tyr Ser Asp Ala Ala
 355     360     365
Ala Lys Lys Gln Ala Arg Ser Leu Gln Ala Val Pro Arg Leu Val Lys
 370     375     380
Leu Phe Asn His Ala Asn Gln Glu Val Gln Arg His Ala Thr Gly Ala
 385     390     395     400
Met Arg Asn Leu Ile Tyr Asp Asn Ala Asp Asn Lys Leu Ala Leu Val
 405     410     415
Glu Glu Asn Gly Ile Phe Glu Leu Leu Arg Thr Leu Arg Glu Gln Asp
 420     425     430
Asp Glu Leu Arg Lys Asn Val Thr Gly Ile Leu Trp Asn Leu Ser Ser
 435     440     445
Ser Asp His Leu Lys Asp Arg Leu Ala Lys Lys Thr Pro Leu Glu Gln

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450	455	460
Leu Thr Asp Leu Gly Val Xaa Ala Pro Leu Ser Gly Ala Gly Gly Pro		
465	470	475
Pro Leu Ile Gln Gln Asn Ala Ser Glu Ala Glu Ile Phe Tyr Asn Ala		480
	485	490
Thr Gly Phe Pro Arg Asn Leu Ser Ser Ala Ser Gln Ala Thr Arg Gln		495
	500	505
Lys Met Arg Glu Cys His Gly Leu Val Asp Ala Leu Val Thr Ser Ile		510
	515	520
Asn His Ala Leu Asp Ala Gly Lys Cys Glu Asp Lys Ser Val Glu Asn		525
	530	535
Ala Val Cys Val Leu Arg Asn Leu Ser Tyr Arg Leu Tyr Asp Glu Met		540
545	550	555
Pro Pro Ser Ala Leu Gln Arg Leu Glu Gly Arg Gly Arg Arg Asp Leu		560
	565	570
Ala Gly Ala Pro Pro Gly Glu Val Val Gly Cys Phe Thr Pro Gln Ser		575
	580	585
Arg Arg Leu Arg Glu Leu Pro Leu Ala Ala Asp Ala Leu Thr Phe Ala		590
	595	600
Glu Val Ser Lys Asp Pro Lys Gly Leu Glu Trp Leu Trp Ser Pro Gln		605
610	615	620
Ile Val Gly Leu Tyr Asn Arg Leu Leu Gln Arg Cys Glu Leu Asn Arg		625
	630	635
His Thr Thr Glu Ala Ala Ala Gly Ala Leu Gln Asn Ile Thr Gly Gly		640
	645	650
Asp Pro Arg Gly Pro Gly Gly Leu Ser Arg Leu Ala Leu Glu Gln Glu		655
	660	665
Arg Ile Leu Asn Pro Leu Leu Asp Arg Val Arg Thr Ala Asp His His		670
	675	680
Gln Leu Arg Ser Leu Thr Gly Leu Ile Arg Asn Leu Ser Arg Asn Ala		685
	690	695
Arg Asn Lys Asp Glu Met Ser Thr Lys Val Val Ser His Leu Ile Glu		700
705	710	715
Lys Leu Pro Gly Ser Val Gly Glu Lys Ser Pro Pro Ala Glu Val Leu		720
	725	730
Val Asn Ile Ile Ala Val Phe Asn Asn Leu Gly Trp Leu Ala Ser Pro		735
	740	745
Ile Ala Leu Ala Arg Asp Leu Leu Tyr Phe Asp Gly Leu Arg Lys Leu		750
	755	760
Ile Phe Ile Lys Lys Lys Arg Asp Ser Pro Asp Ser Glu Lys Ser Ser		765
	770	775
Arg Ala Ala Ser Ser Leu Leu Ala Asn Leu Trp Gln Tyr Asn Lys Leu		780
785	790	795
His Arg Asp Phe Arg Ala Lys Gly Tyr Arg Lys Glu Asp Phe Leu Gly		800
	805	810
		815
Pro		
817		

<210> 3857

<211> 279

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(277)

<223> Xaa = any amino acid or nothing

<400> 3857

Val	Ala	Val	Thr	Leu	Leu	Ser	Gln	Leu	Pro	Ser	Ala	Ile	Gln	Arg	Thr
1				5				10						15	
Ala	Ala	Trp	Glu	Met	Arg	Ala	Pro	Leu	Thr	Phe	Arg	Val	Pro	Leu	Ala

		20						25					30				
Leu	Asp	Leu	Ile	Lys	Pro	Glu	His	Cys	Thr	Val	Asn	Val	Asp	Asn	Ser		
		35					40					45					
Leu	Ser	Ile	Pro	Val	Ile	Ala	Ala	Glu	Leu	Val	Val	Arg	Lys	Pro	Ser		
		50				55					60						
Glu	Lys	Gly	Met	Gln	Gln	Lys	Lys	Lys	Thr	Lys	Asp	Leu	Gly	Phe	Arg		
		65			70					75					80		
Ala	Gly	Lys	Glu	Ser	Lys	Thr	Glu	Trp	Arg	Lys	Xaa	Gly	Leu	Gln	Asp		
			85					90						95			
Met	Ala	Ser	Gln	Met	Phe	Ala	Leu	Pro	Leu	Lys	Xaa	Pro	Val	Thr	Ala		
		100						105					110				
Ala	Phe	His	Asp	Ser	Ser	Met	Pro	Ser	Ser	Leu	Leu	Gln	Ile	Glu	Met		
		115					120					125					
Glu	Gln	Leu	Phe	Leu	Glu	Ala	Arg	Leu	Gln	Pro	Asp	Ser	Lys	Ser	Glu		
		130				135					140						
Ala	Arg	Arg	Asn	Gln	Cys	Asp	Ser	Met	Leu	Leu	Arg	Asn	Gln	Gln	Leu		
		145			150					155					160		
Cys	Ser	Thr	Cys	Gln	Glu	Met	Lys	Met	Val	Gln	Pro	Arg	Thr	Met	Lys		
			165						170					175			
Ile	Pro	Asp	Asp	Pro	Lys	Ala	Ser	Phe	Glu	Asn	Cys	Met	Ser	Tyr	Arg		
		180						185					190				
Met	Ser	Leu	His	Gln	Pro	Lys	Phe	Gln	Thr	Thr	Pro	Glu	Pro	Phe	His		
		195					200					205					
Asp	Asp	Ile	Pro	Thr	Glu	Asn	Ile	His	Leu	Gln	Asn	Leu	Pro	Ile	Leu		
		210				215					220						
Gly	Pro	Arg	Thr	Ala	Val	Phe	His	Gly	Leu	Leu	Thr	Glu	Ala	Tyr	Lys		
		225			230					235					240		
Thr	Leu	Lys	Glu	Arg	Gln	Arg	Ser	Ser	Leu	Pro	Arg	Lys	Glu	Pro	Ile		
			245						250					255			
Gly	Lys	Thr	Thr	Glu	Ala	Val	Ser	Gly	Arg	Ser	Ser	Ser	Pro	Pro	Arg		
		260						265					270				
Leu	Pro	Glu	Arg	Lys													
		275		277													

<210> 3858

<211> 1089

<212> PRT

<213> Homo sapiens

<400> 3858

Ser	His	Gln	Glu	Ile	Glu	Gln	Asn	Ser	Ala	Met	Ala	Pro	Arg	Lys	Arg		
				5					10					15			
Gly	Gly	Arg	Gly	Ile	Ser	Phe	Ile	Phe	Cys	Cys	Phe	Arg	Asn	Asn	Asp		
		20						25					30				
His	Pro	Glu	Ile	Thr	Tyr	Arg	Leu	Arg	Asn	Asp	Ser	Asn	Phe	Ala	Leu		
		35					40					45					
Gln	Thr	Met	Glu	Pro	Ala	Leu	Pro	Met	Pro	Pro	Val	Glu	Glu	Leu	Asp		
		50				55					60						
Val	Met	Phe	Ser	Glu	Leu	Val	Asp	Glu	Leu	Asp	Leu	Thr	Asp	Lys	His		
		65			70					75					80		
Arg	Glu	Ala	Met	Phe	Ala	Leu	Pro	Ala	Glu	Lys	Lys	Trp	Gln	Ile	Tyr		
			85					90						95			
Cys	Ser	Lys	Lys	Lys	Asp	Gln	Glu	Glu	Asn	Lys	Gly	Ala	Thr	Ser	Trp		
		100						105					110				
Pro	Glu	Phe	Tyr	Ile	Asp	Gln	Leu	Asn	Ser	Met	Ala	Ala	Arg	Lys	Ser		
		115				120						125					
Leu	Leu	Ala	Leu	Glu	Lys	Glu	Glu	Glu	Glu	Glu	Arg	Ser	Lys	Thr	Ile		
		130				135					140						
Glu	Ser	Leu	Lys	Thr	Ala	Leu	Arg	Thr	Lys	Pro	Met	Arg	Phe	Val	Thr		
		145			150					155					160		
Arg	Phe	Ile	Asp	Leu	Asp	Gly	Leu	Ser	Cys	Ile	Leu	Asn	Phe	Leu	Lys		

				165					170					175	
Thr	Met	Asp	Tyr	Glu	Thr	Ser	Glu	Ser	Arg	Ile	His	Thr	Ser	Leu	Ile
			180					185					190		
Gly	Cys	Ile	Lys	Ala	Leu	Met	Asn	Asn	Ser	Gln	Gly	Arg	Ala	His	Val
		195					200					205			
Leu	Ala	His	Ser	Glu	Ser	Ile	Asn	Val	Ile	Ala	Gln	Ser	Leu	Ser	Thr
	210					215					220				
Glu	Asn	Ile	Lys	Thr	Lys	Val	Ala	Val	Leu	Glu	Ile	Leu	Gly	Ala	Val
225					230					235				240	
Cys	Leu	Val	Pro	Gly	Gly	His	Lys	Lys	Val	Leu	Gln	Ala	Met	Leu	His
				245					250				255		
Tyr	Gln	Lys	Tyr	Ala	Ser	Glu	Arg	Thr	Arg	Phe	Gln	Thr	Leu	Ile	Asn
			260					265					270		
Asp	Leu	Asp	Lys	Ser	Thr	Gly	Arg	Tyr	Arg	Asp	Glu	Val	Ser	Leu	Lys
		275					280					285			
Thr	Ala	Ile	Met	Ser	Phe	Ile	Asn	Ala	Val	Leu	Ser	Gln	Gly	Ala	Gly
	290					295						300			
Val	Glu	Ser	Leu	Asp	Phe	Arg	Leu	His	Leu	Arg	Tyr	Glu	Phe	Leu	Met
305					310					315				320	
Leu	Gly	Ile	His	Pro	Val	Met	Asp	Lys	Leu	Arg	Lys	His	Glu	Asn	Ser
				325					330				335		
Thr	Leu	Asp	Arg	His	Leu	Asp	Phe	Phe	Glu	Met	Leu	Arg	Asn	Glu	Asp
		340						345					350		
Glu	Leu	Glu	Phe	Ala	Lys	Arg	Phe	Glu	Leu	Val	His	Ile	Asp	Thr	Lys
		355					360					365			
Ser	Ala	Thr	Gln	Met	Phe	Glu	Leu	Thr	Arg	Lys	Arg	Leu	Thr	His	Ser
	370					375					380				
Glu	Ala	Tyr	Pro	His	Phe	Met	Ser	Ile	Leu	His	His	Cys	Leu	Gln	Met
385					390					395				400	
Pro	Tyr	Lys	Arg	Ser	Gly	Asn	Thr	Val	Gln	Tyr	Trp	Leu	Leu	Leu	Asp
				405					410				415		
Arg	Ile	Ile	Gln	Ile	Val	Ile	Gln	Asn	Asp	Lys	Gly	Gln	Asp	Pro	
			420				425					430			
Asp	Ser	Thr	Pro	Leu	Glu	Asn	Phe	Asn	Ile	Lys	Asn	Val	Val	Arg	Met
		435					440					445			
Leu	Val	Asn	Glu	Asn	Glu	Val	Lys	Gln	Trp	Lys	Glu	Gln	Ala	Glu	Lys
	450					455					460				
Met	Arg	Lys	Glu	His	Asn	Glu	Leu	Gln	Gln	Lys	Leu	Glu	Lys	Lys	Glu
465					470					475				480	
Arg	Glu	Cys	Asp	Ala	Lys	Thr	Gln	Glu	Lys	Glu	Glu	Met	Met	Gln	Thr
				485					490				495		
Leu	Asn	Lys	Met	Lys	Glu	Lys	Leu	Glu	Lys	Glu	Thr	Thr	Glu	His	Lys
		500						505					510		
Gln	Val	Lys	Gln	Gln	Val	Ala	Asp	Leu	Thr	Ala	Gln	Leu	His	Glu	Leu
		515					520					525			
Ser	Arg	Arg	Ala	Val	Cys	Ala	Ser	Ile	Pro	Gly	Gly	Pro	Ser	Pro	Gly
	530					535					540				
Ala	Pro	Gly	Gly	Pro	Phe	Pro	Ser	Ser	Val	Pro	Gly	Ser	Leu	Leu	Pro
545					550					555				560	
Pro	Pro	Pro	Pro	Pro	Pro	Leu	Pro	Gly	Gly	Met	Leu	Pro	Pro	Pro	Pro
				565				570					575		
Pro	Pro	Leu	Pro	Pro	Gly	Gly	Pro	Pro	Pro	Pro	Pro	Gly	Pro	Pro	Pro
		580					585					590			
Leu	Gly	Ala	Ile	Met	Pro	Pro	Pro	Gly	Ala	Pro	Met	Gly	Leu	Ala	Leu
		595					600					605			
Lys	Lys	Lys	Ser	Ile	Pro	Gln	Pro	Thr	Asn	Ala	Leu	Lys	Ser	Phe	Asn
		610				615					620				
Trp	Ser	Lys	Leu	Pro	Glu	Asn	Lys	Leu	Glu	Gly	Thr	Val	Trp	Thr	Glu
625					630					635				640	
Ile	Asp	Asp	Thr	Lys	Val	Phe	Lys	Ile	Leu	Asp	Leu	Glu	Asp	Leu	Glu
				645					650				655		
Arg	Thr	Phe	Ser	Ala	Tyr	Gln	Arg	Gln	Gln	Asp	Phe	Phe	Val	Asn	Ser
			660					665					670		
Asn	Ser	Lys	Gln	Lys	Glu	Ala	Asp	Ala	Ile	Asp	Asp	Thr	Leu	Ser	Ser

675	680	685
Lys Leu Lys Val Lys Glu Leu Ser Val Ile Asp Gly Arg Arg Ala Gln		
690	695	700
Asn Cys Asn Ile Leu Leu Ser Arg Leu Lys Leu Ser Asn Asp Glu Ile		
705	710	715
Lys Arg Ala Ile Leu Thr Met Asp Glu Gln Glu Asp Leu Pro Lys Asp		
725	730	735
Met Leu Glu Gln Leu Leu Lys Phe Val Pro Glu Lys Ser Asp Ile Asp		
740	745	750
Leu Leu Glu Glu His Lys His Glu Leu Asp Arg Met Ala Lys Ala Asp		
755	760	765
Arg Phe Leu Phe Glu Met Ser Arg Ile Asn His Tyr Gln Gln Arg Leu		
770	775	780
Gln Ser Leu Tyr Phe Lys Lys Lys Phe Ala Glu Arg Val Ala Glu Val		
785	790	795
Lys Pro Lys Val Glu Ala Ile Arg Ser Gly Ser Glu Glu Val Phe Arg		
805	810	815
Ser Gly Ala Leu Lys Gln Leu Leu Glu Val Val Leu Ala Phe Gly Asn		
820	825	830
Tyr Met Asn Lys Gly Gln Arg Gly Asn Ala Tyr Gly Phe Lys Ile Ser		
835	840	845
Ser Leu Asn Lys Ile Ala Asp Thr Lys Ser Ser Ile Asp Lys Asn Ile		
850	855	860
Thr Leu Leu His Tyr Leu Ile Thr Ile Val Glu Asn Lys Tyr Pro Ser		
865	870	875
Val Leu Asn Leu Asn Glu Glu Leu Arg Asp Ile Pro Gln Ala Ala Lys		
885	890	895
Val Asn Met Thr Glu Leu Asp Lys Glu Ile Ser Thr Leu Arg Ser Gly		
900	905	910
Leu Lys Ala Val Glu Thr Glu Leu Glu Tyr Gln Lys Ser Gln Pro Pro		
915	920	925
Gln Pro Gly Asp Lys Phe Val Ser Val Val Ser Gln Phe Ile Thr Val		
930	935	940
Ala Ser Phe Ser Phe Ser Asp Val Glu Asp Leu Leu Ala Glu Ala Lys		
945	950	955
Asp Leu Phe Thr Lys Ala Val Lys His Phe Gly Glu Glu Ala Gly Lys		
965	970	975
Ile Gln Pro Asp Glu Phe Phe Gly Ile Phe Asp Gln Phe Leu Gln Ala		
980	985	990
Val Ser Glu Ala Lys Gln Glu Asn Glu Asn Met Arg Lys Lys Lys Glu		
995	1000	1005
Glu Glu Glu Arg Arg Ala Arg Met Glu Ala Gln Leu Lys Glu Gln Arg		
1010	1015	1020
Glu Arg Glu Arg Lys Met Arg Lys Ala Lys Glu Asn Ser Glu Glu Ser		
1025	1030	1035
Gly Glu Phe Asp Asp Leu Val Ser Ala Leu Arg Ser Gly Glu Val Phe		
1045	1050	1055
Asp Lys Asp Leu Ser Lys Leu Lys Arg Asn Arg Lys Arg Ile Thr Asn		
1060	1065	1070
Gln Met Thr Asp Ser Ser Arg Glu Arg Pro Ile Thr Lys Leu Asn Phe		
1075	1080	1085
		1088

<210> 3859

<211> 380

<212> PRT

<213> Homo sapiens

<400> 3859

Arg Val Glu His Leu Ser Glu Phe Leu Val Asp Ile Lys Pro Ser Leu

1	5	10	15
Thr Phe Asp Val Ile Pro Leu Leu Asp Pro Tyr Gly Pro Ala Gly Ser			
20	25	30	
Asp Pro Ser Leu Glu Phe Leu Val Val Ser Glu Glu Thr Tyr Arg Gly			
35	40	45	
Gly Met Ala Ile Asn Arg Phe Arg Leu Glu Asn Asp Leu Glu Glu Leu			
50	55	60	
Ala Leu Tyr Gln Ile Gln Leu Leu Lys Asp Leu Arg His Thr Glu Asn			
65	70	75	80
Glu Glu Asp Lys Val Ser Ser Ser Ser Phe Arg Gln Arg Met Leu Gly			
85	90	95	
Asn Leu Leu Arg Pro Pro Tyr Glu Arg Pro Glu Leu Pro Thr Cys Leu			
100	105	110	
Tyr Val Ile Gly Leu Thr Gly Ile Ser Gly Ser Gly Lys Ser Ser Ile			
115	120	125	
Ala Gln Arg Leu Lys Gly Leu Gly Ala Phe Val Ile Asp Ser Asp His			
130	135	140	
Leu Gly His Arg Ala Tyr Ala Pro Gly Gly Pro Ala Tyr Gln Pro Val			
145	150	155	160
Val Glu Ala Phe Gly Thr Asp Ile Leu His Lys Asp Gly Ile Ile Asn			
165	170	175	
Arg Lys Val Leu Gly Ser Arg Val Phe Gly Asn Lys Lys Gln Leu Lys			
180	185	190	
Ile Leu Thr Asp Ile Met Trp Pro Ile Ile Ala Lys Leu Ala Arg Glu			
195	200	205	
Glu Met Asp Arg Ala Val Ala Glu Gly Lys Arg Val Cys Val Ile Asp			
210	215	220	
Ala Ala Val Leu Leu Glu Ala Gly Trp Gln Asn Leu Val His Glu Val			
225	230	235	240
Trp Thr Ala Val Ile Pro Glu Thr Glu Ala Val Arg Arg Ile Val Glu			
245	250	255	
Arg Asp Gly Leu Ser Glu Ala Ala Ala Gln Ser Arg Leu Gln Ser Gln			
260	265	270	
Met Ser Gly Gln Gln Leu Val Glu Gln Ser His Val Val Leu Ser Thr			
275	280	285	
Cys Gly Ser Arg Ile Ser Pro Asn Ala Arg Trp Arg Lys Pro Gly Pro			
290	295	300	
Ser Cys Arg Ser Ala Phe Pro Arg Leu Ile Arg Pro Ser Thr Glu Lys			
305	310	315	320
Phe Ser Val Gly Pro Asp Trp Leu Leu Glu Leu Thr Ser Asp Pro Val			
325	330	335	
Val Arg Arg Asn Gly Gly Leu Asp Ala His Pro Gly Ser Gly Pro Glu			
340	345	350	
Val Gln Ala Ile Leu Cys Arg Thr Trp Pro Gly Leu Val Asp Thr Gly			
355	360	365	
Ser Leu Pro Asn Thr Leu Val Phe Gly Gln His			
370	375	379	

<210> 3860

<211> 1294

<212> PRT

<213> Homo sapiens

<400> 3860

Met Gly Gln Lys Ser Val Gly Ala Ser Tyr Val Gln Ile Pro Leu Val			
1	5	10	15
Pro Pro Leu Ser Arg His Pro Lys Gly Leu Gly His Glu Asp Arg Trp			
20	25	30	
Ser Ser Tyr Cys Leu Ser Ser Leu Ala Ala Gln Asn Ile Cys Thr Ser			
35	40	45	
Lys Leu His Cys Pro Ala Ala Pro Glu His Thr Asp Pro Ser Glu Pro			

50	55	60
Arg Gly Ser Val Ser Cys Cys Ser Leu Leu Arg Gly Leu Ser Ser Gly		
65	70	75
Trp Ser Ser Pro Leu Leu Pro Ala Pro Val Cys Asn Pro Asn Lys Ala		80
	85	90
Ile Phe Thr Val Asp Ala Lys Thr Thr Glu Ile Leu Val Ala Asn Asp		95
	100	105
Lys Ala Cys Gly Leu Leu Gly Tyr Ser Ser Gln Asp Leu Ile Gly Gln		110
	115	120
Lys Leu Thr Gln Phe Phe Leu Arg Ser Asp Ser Asp Val Val Glu Ala		125
	130	135
Leu Ser Glu Glu His Met Glu Ala Asp Gly His Ala Ala Val Val Phe		140
145	150	155
Gly Thr Val Val Asp Ile Ile Ser Arg Ser Gly Glu Lys Ile Pro Val		160
	165	170
Ser Val Trp Met Lys Arg Met Arg Gln Glu Arg Arg Leu Cys Cys Val		175
	180	185
Val Val Leu Glu Pro Val Glu Arg Val Ser Thr Trp Val Ala Phe Gln		190
	195	200
Ser Asp Gly Thr Val Thr Ser Cys Asp Ser Leu Phe Ala His Leu His		205
	210	215
Gly Tyr Val Ser Gly Glu Asp Val Ala Gly Gln His Ile Thr Asp Leu		220
225	230	235
Ile Pro Ser Val Gln Leu Pro Pro Ser Gly Gln His Ile Pro Lys Asn		240
	245	250
Leu Lys Ile Gln Arg Ser Val Gly Arg Ala Arg Asp Gly Thr Thr Phe		255
	260	265
Pro Leu Ser Leu Lys Leu Lys Ser Gln Pro Ser Ser Glu Glu Ala Thr		270
	275	280
Thr Gly Glu Ala Ala Pro Val Ser Gly Tyr Arg Ala Ser Val Trp Val		285
	290	295
Phe Cys Thr Ile Ser Gly Leu Ile Thr Leu Leu Pro Asp Gly Thr Ile		300
305	310	315
His Gly Ile Asn His Ser Phe Ala Leu Thr Leu Phe Gly Tyr Gly Lys		320
	325	330
Thr Glu Leu Leu Gly Lys Asn Ile Thr Phe Leu Ile Pro Gly Phe Tyr		335
	340	345
Ser Tyr Met Asp Leu Ala Tyr Asn Ser Ser Leu Gln Leu Pro Asp Leu		350
	355	360
Ala Ser Cys Leu Asp Val Gly Asn Glu Ser Gly Cys Gly Glu Arg Thr		365
	370	375
Leu Asp Pro Trp Gln Gly Gln Asp Pro Ala Glu Gly Gly Gln Asp Pro		380
385	390	395
Arg Ile Asn Val Val Leu Ala Gly Gly His Val Val Pro Arg Asp Glu		400
	405	410
Ile Arg Lys Leu Met Glu Ser Gln Asp Ile Phe Thr Gly Thr Gln Thr		415
	420	425
Glu Leu Ile Ala Gly Gly Gln Leu Leu Ser Cys Leu Ser Pro Gln Pro		430
	435	440
Ala Pro Gly Val Asp Asn Val Pro Glu Gly Ser Leu Pro Val His Gly		445
	450	455
Glu Gln Ala Leu Pro Lys Asp Gln Gln Ile Thr Ala Leu Gly Arg Glu		460
465	470	475
Glu Pro Val Ala Ile Glu Ser Pro Gly Gln Asp Leu Leu Gly Glu Ser		480
	485	490
Arg Ser Glu Pro Val Asp Val Lys Pro Phe Ala Ser Cys Glu Asp Ser		495
	500	505
Glu Ala Pro Val Pro Ala Glu Asp Gly Gly Ser Asp Ala Gly Met Cys		510
	515	520
Gly Leu Cys Gln Lys Ala Gln Leu Glu Arg Met Gly Val Ser Gly Pro		525
	530	535
Ser Gly Ser Asp Leu Trp Ala Gly Ala Ala Val Ala Lys Pro Gln Ala		540
545	550	555
Lys Gly Gln Leu Ala Gly Gly Ser Leu Leu Met His Cys Pro Cys Tyr		560

				565					570				575			
Gly	Ser	Glu	Trp	Gly	Leu	Trp	Trp	Arg	Ser	Gln	Asp	Leu	Ala	Pro	Ser	
				580				585					590			
Pro	Ser	Gly	Met	Ala	Gly	Leu	Ser	Phe	Gly	Thr	Pro	Thr	Leu	Asp	Glu	
		595					600					605				
Pro	Trp	Leu	Gly	Val	Glu	Asn	Asp	Arg	Glu	Glu	Leu	Gln	Thr	Cys	Leu	
	610					615						620				
Ile	Lys	Glu	Gln	Leu	Ser	Gln	Leu	Ser	Leu	Ala	Gly	Ala	Leu	Asp	Val	
625				630						635					640	
Pro	His	Ala	Glu	Leu	Val	Pro	Thr	Glu	Cys	Gln	Ala	Val	Thr	Ala	Pro	
			645					650						655		
Val	Ser	Ser	Cys	Asp	Leu	Gly	Gly	Arg	Asp	Leu	Cys	Gly	Gly	Cys	Thr	
			660					665					670			
Gly	Ser	Ser	Ser	Ala	Cys	Tyr	Ala	Leu	Ala	Thr	Asp	Leu	Pro	Gly	Gly	
	675						680					685				
Leu	Glu	Ala	Val	Glu	Ala	Gln	Glu	Val	Asp	Val	Asn	Ser	Phe	Ser	Trp	
	690					695					700					
Asn	Leu	Lys	Glu	Leu	Phe	Phe	Ser	Asp	Gln	Thr	Asp	Gln	Thr	Ser	Ser	
705					710						715				720	
Asn	Cys	Ser	Cys	Ala	Thr	Ser	Glu	Leu	Arg	Glu	Thr	Pro	Ser	Ser	Leu	
			725					730						735		
Ala	Val	Gly	Ser	Asp	Pro	Asp	Val	Gly	Ser	Leu	Gln	Glu	Gln	Gly	Ser	
		740						745					750			
Cys	Val	Leu	Asp	Asp	Arg	Glu	Leu	Leu	Leu	Leu	Thr	Gly	Thr	Cys	Val	
		755					760					765				
Asp	Leu	Gly	Gln	Gly	Arg	Arg	Phe	Arg	Glu	Ser	Cys	Val	Gly	His	Asp	
	770					775					780					
Pro	Thr	Glu	Pro	Leu	Glu	Val	Cys	Leu	Val	Ser	Ser	Glu	His	Tyr	Ala	
785					790					795					800	
Ala	Ser	Asp	Arg	Glu	Ser	Pro	Gly	His	Val	Pro	Ser	Thr	Leu	Asp	Ala	
			805						810					815		
Gly	Pro	Glu	Asp	Thr	Cys	Pro	Ser	Ala	Glu	Glu	Pro	Arg	Leu	Asn	Val	
		820						825					830			
Gln	Val	Thr	Ser	Thr	Pro	Val	Ile	Val	Met	Arg	Gly	Ala	Ala	Gly	Leu	
	835						840					845				
Gln	Arg	Glu	Ile	Gln	Glu	Gly	Ala	Tyr	Ser	Gly	Ser	Cys	Tyr	His	Arg	
	850					855					860					
Asp	Gly	Leu	Arg	Leu	Ser	Ile	Gln	Phe	Glu	Val	Arg	Arg	Val	Glu	Leu	
865					870					875					880	
Gln	Gly	Pro	Thr	Pro	Leu	Phe	Cys	Cys	Trp	Leu	Val	Lys	Asp	Leu	Leu	
			885						890				895			
His	Ser	Gln	Arg	Asp	Ser	Ala	Ala	Arg	Thr	Arg	Leu	Phe	Leu	Ala	Ser	
		900						905					910			
Leu	Pro	Gly	Ser	Thr	His	Ser	Thr	Ala	Ala	Glu	Leu	Thr	Gly	Pro	Ser	
	915						920						925			
Leu	Val	Glu	Val	Leu	Arg	Ala	Arg	Pro	Trp	Phe	Glu	Glu	Pro	Pro	Lys	
	930					935					940					
Ala	Val	Glu	Leu	Glu	Gly	Leu	Ala	Ala	Cys	Glu	Gly	Glu	Tyr	Ser	Gln	
945					950					955					960	
Lys	Tyr	Ser	Thr	Met	Ser	Pro	Leu	Gly	Ser	Gly	Ala	Phe	Gly	Phe	Val	
			965						970					975		
Trp	Thr	Ala	Val	Asp	Lys	Glu	Lys	Asn	Lys	Glu	Val	Val	Val	Lys	Phe	
		980						985					990			
Ile	Lys	Lys	Glu	Lys	Val	Leu	Glu	Asp	Cys	Trp	Ile	Glu	Asp	Pro	Lys	
	995					1000						1005				
Leu	Gly	Lys	Val	Thr	Leu	Glu	Ile	Ala	Ile	Leu	Ser	Arg	Val	Glu	His	
	1010					1015					1020					
Ala	Asn	Ile	Ile	Lys	Val	Leu	Asp	Ile	Phe	Glu	Asn	Gln	Gly	Phe	Phe	
1025					1030					1035					1040	
Gln	Leu	Val	Met	Glu	Lys	His	Gly	Ser	Gly	Leu	Asp	Leu	Phe	Ala	Phe	
			1045					1050					1055			
Ile	Asp	Arg	His	Pro	Arg	Leu	Asp	Glu	Pro	Leu	Ala	Ser	Tyr	Ile	Phe	
	1060							1065					1070			
Arg	Gln	Val	Arg	Ala	Gly	Gln	Ser	Arg	Leu	Val	Ser	Ala	Val	Gly	Tyr	

1075	1080	1085
Leu Arg Leu Lys Asp Ile Ile His Arg Asp Ile Lys Asp Glu Asn Ile		
1090	1095	1100
Val Ile Ala Glu Asp Phe Thr Ile Lys Leu Ile Asp Phe Gly Ser Ala		
1105	1110	1115
Ala Tyr Leu Glu Arg Gly Lys Leu Phe Tyr Thr Phe Cys Gly Thr Ile		
1125	1130	1135
Glu Tyr Cys Ala Pro Glu Val Leu Met Gly Asn Pro Tyr Arg Gly Pro		
1140	1145	1150
Glu Leu Glu Met Trp Ser Leu Gly Val Thr Leu Tyr Thr Leu Val Phe		
1155	1160	1165
Glu Glu Asn Pro Phe Cys Glu Leu Glu Glu Thr Val Glu Ala Ala Ile		
1170	1175	1180
His Pro Pro Tyr Leu Val Ser Lys Glu Leu Met Ser Leu Val Ser Gly		
1185	1190	1195
Leu Leu Gln Pro Val Pro Glu Arg Arg Thr Thr Leu Glu Lys Leu Val		
1205	1210	1215
Thr Asp Pro Trp Val Thr Gln Pro Val Asn Leu Ala Asp Tyr Thr Trp		
1220	1225	1230
Glu Glu Val Phe Arg Val Asn Lys Pro Glu Ser Gly Val Leu Ser Ala		
1235	1240	1245
Ala Ser Leu Glu Met Gly Asn Arg Ser Leu Ser Asp Val Ala Gln Ala		
1250	1255	1260
Gln Glu Leu Cys Gly Gly Pro Val Pro Gly Glu Ala Pro Asn Gly Gln		
1265	1270	1275
Gly Cys Leu His Pro Gly Asp Pro Arg Leu Leu Thr Ser		
1285	1290	1293

<210> 3861

<211> 1294

<212> PRT

<213> Homo sapiens.

<400> 3861

Met Gly Gln Lys Ser Val Gly Ala Ser Tyr Val Gln Ile Pro Leu Val		
1	5	10
Pro Pro Leu Ser Arg His Pro Lys Gly Leu Gly His Glu Asp Arg Trp		
20	25	30
Ser Ser Tyr Cys Leu Ser Ser Leu Ala Ala Gln Asn Ile Cys Thr Ser		
35	40	45
Lys Leu His Cys Pro Ala Ala Pro Glu His Thr Asp Pro Ser Glu Pro		
50	55	60
Arg Gly Ser Val Ser Cys Cys Ser Leu Leu Arg Gly Leu Ser Ser Gly		
65	70	75
Trp Ser Ser Pro Leu Leu Pro Ala Pro Val Cys Asn Pro Asn Lys Ala		
85	90	95
Ile Phe Thr Val Asp Ala Lys Thr Thr Glu Ile Leu Val Ala Asn Asp		
100	105	110
Lys Ala Cys Gly Leu Leu Gly Tyr Ser Ser Gln Asp Leu Ile Gly Gln		
115	120	125
Lys Leu Thr Gln Phe Phe Leu Arg Ser Asp Ser Asp Val Val Glu Ala		
130	135	140
Leu Ser Glu Glu His Met Glu Ala Asp Gly His Ala Ala Val Val Phe		
145	150	155
Gly Thr Val Val Asp Ile Ile Ser Arg Ser Gly Glu Lys Ile Pro Val		
165	170	175
Ser Val Trp Met Lys Arg Met Arg Gln Glu Arg Arg Leu Cys Cys Val		
180	185	190
Val Val Leu Glu Pro Val Glu Arg Val Ser Thr Trp Val Ala Phe Gln		
195	200	205
Ser Asp Gly Thr Val Thr Ser Cys Asp Ser Leu Phe Ala His Leu His		

210	215	220
Gly Tyr Val Ser Gly Glu Asp Val Ala Gly Gln His Ile Thr Asp Leu		
225	230	235
Ile Pro Ser Val Gln Leu Pro Pro Ser Gly Gln His Ile Pro Lys Asn		240
	245	250
Leu Lys Ile Gln Arg Ser Val Gly Arg Ala Arg Asp Gly Thr Thr Phe		255
	260	265
Pro Leu Ser Leu Lys Leu Lys Ser Gln Pro Ser Ser Glu Glu Ala Thr		270
	275	280
Thr Gly Glu Ala Ala Pro Val Ser Gly Tyr Arg Ala Ser Val Trp Val		285
	290	295
Phe Cys Thr Ile Ser Gly Leu Ile Thr Leu Leu Pro Asp Gly Thr Ile		300
305	310	315
His Gly Ile Asn His Ser Phe Ala Leu Thr Leu Phe Gly Tyr Gly Lys		320
	325	330
Thr Glu Leu Leu Gly Lys Asn Ile Thr Phe Leu Ile Pro Gly Phe Tyr		335
	340	345
Ser Tyr Met Asp Leu Ala Tyr Asn Ser Ser Leu Gln Leu Pro Asp Leu		350
	355	360
Ala Ser Cys Leu Asp Val Gly Asn Glu Ser Gly Cys Gly Glu Arg Thr		365
	370	375
Leu Asp Pro Trp Gln Gly Gln Asp Pro Ala Glu Gly Gly Gln Asp Pro		380
385	390	395
Arg Ile Asn Val Val Leu Ala Gly Gly His Val Val Pro Arg Asp Glu		400
	405	410
Ile Arg Lys Leu Met Glu Ser Gln Asp Ile Phe Thr Gly Thr Gln Thr		415
	420	425
Glu Leu Ile Ala Gly Gly Gln Leu Leu Ser Cys Leu Ser Pro Gln Pro		430
	435	440
Ala Pro Gly Val Asp Asn Val Pro Glu Gly Ser Leu Pro Val His Gly		445
	450	455
Glu Gln Ala Leu Pro Lys Asp Gln Gln Ile Thr Ala Leu Gly Arg Glu		460
465	470	475
Glu Pro Val Ala Ile Glu Ser Pro Gly Gln Asp Leu Leu Gly Glu Ser		480
	485	490
Arg Ser Glu Pro Val Asp Val Lys Pro Phe Ala Ser Cys Glu Asp Ser		495
	500	505
Glu Ala Pro Val Pro Ala Glu Asp Gly Gly Ser Asp Ala Gly Met Cys		510
	515	520
Gly Leu Cys Gln Lys Ala Gln Leu Glu Arg Met Gly Val Ser Gly Pro		525
	530	535
Ser Gly Ser Asp Leu Trp Ala Gly Ala Ala Val Ala Lys Pro Gln Ala		540
545	550	555
Lys Gly Gln Leu Ala Gly Gly Ser Leu Leu Met His Cys Pro Cys Tyr		560
	565	570
Gly Ser Glu Trp Gly Leu Trp Trp Arg Ser Gln Asp Leu Ala Pro Ser		575
	580	585
Pro Ser Gly Met Ala Gly Leu Ser Phe Gly Thr Pro Thr Leu Asp Glu		590
	595	600
Pro Trp Leu Gly Val Glu Asn Asp Arg Glu Glu Leu Gln Thr Cys Leu		605
	610	615
Ile Lys Glu Gln Leu Ser Gln Leu Ser Leu Ala Gly Ala Leu Asp Val		620
625	630	635
Pro His Ala Glu Leu Val Pro Thr Glu Cys Gln Ala Val Thr Ala Pro		640
	645	650
Val Ser Ser Cys Asp Leu Gly Gly Arg Asp Leu Cys Gly Gly Cys Thr		655
	660	665
Gly Ser Ser Ser Ala Cys Tyr Ala Leu Ala Thr Asp Leu Pro Gly Gly		670
	675	680
Leu Glu Ala Val Glu Ala Gln Glu Val Asp Val Asn Ser Phe Ser Trp		685
	690	695
Asn Leu Lys Glu Leu Phe Phe Ser Asp Gln Thr Asp Gln Thr Ser Ser		700
705	710	715
Asn Cys Ser Cys Ala Thr Ser Glu Leu Arg Glu Thr Pro Ser Ser Leu		720

					725					730					735	
Ala	Val	Gly	Ser	Asp	Pro	Asp	Val	Gly	Ser	Leu	Gln	Glu	Gln	Gly	Ser	
			740					745					750			
Cys	Val	Leu	Asp	Asp	Arg	Glu	Leu	Leu	Leu	Leu	Thr	Gly	Thr	Cys	Val	
		755					760					765				
Asp	Leu	Gly	Gln	Gly	Arg	Arg	Phe	Arg	Glu	Ser	Cys	Val	Gly	His	Asp	
	770					775					780					
Pro	Thr	Glu	Pro	Leu	Glu	Val	Cys	Leu	Val	Ser	Ser	Glu	His	Tyr	Ala	
785					790					795					800	
Ala	Ser	Asp	Arg	Glu	Ser	Pro	Gly	His	Val	Pro	Ser	Thr	Leu	Asp	Ala	
				805					810					815		
Gly	Pro	Glu	Asp	Thr	Cys	Pro	Ser	Ala	Glu	Glu	Pro	Arg	Leu	Asn	Val	
			820					825					830			
Gln	Val	Thr	Ser	Thr	Pro	Val	Ile	Val	Met	Arg	Gly	Ala	Ala	Gly	Leu	
		835					840					845				
Gln	Arg	Glu	Ile	Gln	Glu	Gly	Ala	Tyr	Ser	Gly	Ser	Cys	Tyr	His	Arg	
	850					855					860					
Asp	Gly	Leu	Arg	Leu	Ser	Ile	Gln	Phe	Glu	Val	Arg	Arg	Val	Glu	Leu	
865					870					875					880	
Gln	Gly	Pro	Thr	Pro	Leu	Phe	Cys	Cys	Trp	Leu	Val	Lys	Asp	Leu	Leu	
				885					890					895		
His	Ser	Gln	Arg	Asp	Ser	Ala	Ala	Arg	Thr	Arg	Leu	Phe	Leu	Ala	Ser	
			900					905					910			
Leu	Pro	Gly	Ser	Thr	His	Ser	Thr	Ala	Ala	Glu	Leu	Thr	Gly	Pro	Ser	
		915					920					925				
Leu	Val	Glu	Val	Leu	Arg	Ala	Arg	Pro	Trp	Phe	Glu	Glu	Pro	Pro	Lys	
	930					935					940					
Ala	Val	Glu	Leu	Glu	Gly	Leu	Ala	Ala	Cys	Glu	Gly	Glu	Tyr	Ser	Gln	
945					950					955					960	
Lys	Tyr	Ser	Thr	Met	Ser	Pro	Leu	Gly	Ser	Gly	Ala	Phe	Gly	Phe	Val	
				965					970					975		
Trp	Thr	Ala	Val	Asp	Lys	Glu	Lys	Asn	Lys	Glu	Val	Val	Val	Lys	Phe	
			980					985					990			
Ile	Lys	Lys	Glu	Lys	Val	Leu	Glu	Asp	Cys	Trp	Ile	Glu	Asp	Pro	Lys	
	995					1000					1005					
Leu	Gly	Lys	Val	Thr	Leu	Glu	Ile	Ala	Ile	Leu	Ser	Arg	Val	Glu	His	
	1010					1015					1020					
Ala	Asn	Ile	Ile	Lys	Val	Leu	Asp	Ile	Phe	Glu	Asn	Gln	Gly	Phe	Phe	
1025					1030					1035					1040	
Gln	Leu	Val	Met	Glu	Lys	His	Gly	Ser	Gly	Leu	Asp	Leu	Phe	Ala	Phe	
				1045					1050					1055		
Ile	Asp	Arg	His	Pro	Arg	Leu	Asp	Glu	Pro	Leu	Ala	Ser	Tyr	Ile	Phe	
		1060					1065						1070			
Arg	Gln	Val	Arg	Ala	Gly	Gln	Ser	Arg	Leu	Val	Ser	Ala	Val	Gly	Tyr	
	1075					1080					1085					
Leu	Arg	Leu	Lys	Asp	Ile	Ile	His	Arg	Asp	Ile	Lys	Asp	Glu	Asn	Ile	
	1090				1095						1100					
Val	Ile	Ala	Glu	Asp	Phe	Thr	Ile	Lys	Leu	Ile	Asp	Phe	Gly	Ser	Ala	
1105				1110					1115						1120	
Ala	Tyr	Leu	Glu	Arg	Gly	Lys	Leu	Phe	Tyr	Thr	Phe	Cys	Gly	Thr	Ile	
				1125					1130					1135		
Glu	Tyr	Cys	Ala	Pro	Glu	Val	Leu	Met	Gly	Asn	Pro	Tyr	Arg	Gly	Pro	
			1140				1145						1150			
Glu	Leu	Glu	Met	Trp	Ser	Leu	Gly	Val	Thr	Leu	Tyr	Thr	Leu	Val	Phe	
	1155					1160					1165					
Glu	Glu	Asn	Pro	Phe	Cys	Glu	Leu	Glu	Glu	Thr	Val	Glu	Ala	Ala	Ile	
	1170					1175					1180					
His	Pro	Pro	Tyr	Leu	Val	Ser	Lys	Glu	Leu	Met	Ser	Leu	Val	Ser	Gly	
1185				1190					1195						1200	
Leu	Leu	Gln	Pro	Val	Pro	Glu	Arg	Arg	Thr	Thr	Leu	Glu	Lys	Leu	Val	
			1205						1210					1215		
Thr	Asp	Pro	Trp	Val	Thr	Gln	Pro	Val	Asn	Leu	Ala	Asp	Tyr	Thr	Trp	
			1220					1225					1230			
Glu	Glu	Val	Phe	Arg	Val	Asn	Lys	Pro	Glu	Ser	Gly	Val	Leu	Ser	Ala	

1235	1240	1245
Ala Ser Leu Glu Met Gly Asn Arg Ser Leu Ser Asp Val Ala Gln Ala		
1250	1255	1260
Gln Glu Leu Cys Gly Gly Pro Val Pro Gly Glu Ala Pro Asn Gly Gln		
1265	1270	1275
Gly Cys Leu His Pro Gly Asp Pro Arg Leu Leu Thr Ser		1280
1285	1290	1293

<210> 3862
 <211> 557
 <212> PRT
 <213> Homo sapiens

<400> 3862

Thr Met Asp Arg Ser Lys Arg Asn Ser Ile Ala Gly Phe Pro Pro Arg	
1 5 10 15	
Val Glu Arg Leu Glu Glu Phe Glu Gly Gly Gly Gly Glu Gly Asn	
20 25 30	
Val Ser Gln Val Gly Arg Val Trp Pro Ser Ser Tyr Arg Ala Leu Ile	
35 40 45	
Ser Ala Phe Phe Arg Leu Thr Arg Leu Asp Asp Phe Thr Cys Glu Lys	
50 55 60	
Ile Gly Ser Gly Phe Phe Ser Glu Val Phe Lys Val Arg His Arg Ala	
65 70 75 80	
Ser Gly Gln Val Met Ala Leu Lys Met Asn Thr Leu Ser Ser Asn Arg	
85 90 95	
Ala Asn Met Leu Lys Glu Val Gln Leu Met Asn Arg Leu Ser His Pro	
100 105 110	
Asn Ile Leu Arg Tyr Ile Asn Ser Gly Asn Leu Glu Gln Leu Leu Asp	
115 120 125	
Ser Asn Leu His Leu Pro Trp Thr Val Arg Val Lys Leu Ala Tyr Asp	
130 135 140	
Ile Ala Val Gly Leu Ser Tyr Leu His Phe Lys Gly Ile Phe His Arg	
145 150 155 160	
Asp Leu Thr Ser Lys Asn Cys Leu Ile Lys Arg Asp Glu Asn Gly Tyr	
165 170 175	
Ser Ala Val Val Ala Asp Phe Gly Leu Ala Glu Lys Ile Pro Asp Val	
180 185 190	
Ser Met Gly Ser Glu Lys Leu Ala Val Val Gly Ser Pro Phe Trp Met	
195 200 205	
Ala Pro Glu Val Leu Arg Asp Glu Pro Tyr Asn Glu Lys Ala Asp Val	
210 215 220	
Phe Ser Tyr Gly Ile Ile Leu Cys Glu Ile Ile Ala Arg Ile Gln Ala	
225 230 235 240	
Asp Pro Asp Tyr Leu Pro Arg Thr Glu Asn Phe Gly Leu Asp Tyr Asp	
245 250 255	
Ala Phe Gln His Met Val Gly Asp Cys Pro Pro Asp Phe Leu Gln Leu	
260 265 270	
Thr Phe Asn Cys Cys Asn Met Asp Pro Lys Leu Arg Pro Ser Phe Val	
275 280 285	
Glu Ile Gly Lys Thr Leu Glu Glu Ile Leu Ser Arg Leu Gln Glu Glu	
290 295 300	
Glu Gln Glu Arg Asp Arg Lys Leu Gln Pro Thr Ala Arg Gly Leu Leu	
305 310 315 320	
Glu Lys Ala Pro Gly Val Lys Arg Leu Ser Ser Leu Asp Asp Lys Ile	
325 330 335	
Pro His Lys Ser Pro Cys Pro Arg Arg Thr Ile Trp Leu Ser Arg Ser	
340 345 350	
Gln Ser Asp Ile Phe Ser Arg Lys Pro Pro Arg Thr Val Ser Val Leu	
355 360 365	
Asp Pro Tyr Tyr Arg Pro Arg Asp Gly Ala Ala Arg Thr Pro Lys Val	

370	375	380
Asn Pro Phe Ser Ala Arg Gln Asp Leu Met Gly Gly Lys Ile Lys Phe		
385	390	395
Phe Asp Leu Pro Ser Lys Ser Val Ile Ser Leu Val Phe Asp Leu Asp		400
	405	410
Ala Pro Gly Pro Gly Thr Met Pro Leu Ala Asp Trp Gln Glu Pro Leu		415
	420	425
Ala Pro Pro Ile Arg Arg Trp Arg Ser Leu Pro Gly Ser Pro Glu Phe		430
	435	440
Leu His Gln Glu Ala Cys Pro Phe Val Gly Arg Glu Glu Ser Leu Ser		445
	450	455
Asp Gly Pro Pro Pro Arg Leu Ser Ser Leu Lys Tyr Arg Val Lys Glu		460
465	470	475
Ile Pro Pro Phe Arg Ala Ser Ala Leu Pro Ala Ala Gln Ala His Glu		480
	485	490
Ala Met Asp Cys Ser Ile Leu Gln Glu Glu Asn Gly Phe Gly Ser Arg		495
	500	505
Pro Gln Gly Thr Ser Pro Cys Pro Ala Gly Ala Ser Glu Glu Met Glu		510
	515	520
Val Glu Glu Arg Pro Ala Gly Ser Thr Pro Ala Thr Phe Ser Thr Ser		525
	530	535
Gly Ile Gly Leu Gln Thr Gln Gly Lys Gln Asp Gly		540
545	550	555 556

<210> 3863

<211> 557

<212> PRT

<213> Homo sapiens

<400> 3863

Thr Met Asp Arg Ser Lys Arg Asn Ser Ile Ala Gly Phe Pro Pro Arg		
1	5	10
Val Glu Arg Leu Glu Glu Phe Glu Gly Gly Gly Gly Glu Gly Asn		15
	20	25
Val Ser Gln Val Gly Arg Val Trp Pro Ser Ser Tyr Arg Ala Leu Ile		30
	35	40
Ser Ala Phe Phe Arg Leu Thr Arg Leu Asp Asp Phe Thr Cys Glu Lys		45
	50	55
Ile Gly Ser Gly Phe Phe Ser Glu Val Phe Lys Val Arg His Arg Ala		60
65	70	75
Ser Gly Gln Val Met Ala Leu Lys Met Asn Thr Leu Ser Ser Asn Arg		80
	85	90
Ala Asn Met Leu Lys Glu Val Gln Leu Met Asn Arg Leu Ser His Pro		95
	100	105
Asn Ile Leu Arg Tyr Ile Asn Ser Gly Asn Leu Glu Gln Leu Leu Asp		110
	115	120
Ser Asn Leu His Leu Pro Trp Thr Val Arg Val Lys Leu Ala Tyr Asp		125
	130	135
Ile Ala Val Gly Leu Ser Tyr Leu His Phe Lys Gly Ile Phe His Arg		140
145	150	155
Asp Leu Thr Ser Lys Asn Cys Leu Ile Lys Arg Asp Glu Asn Gly Tyr		160
	165	170
Ser Ala Val Val Ala Asp Phe Gly Leu Ala Glu Lys Ile Pro Asp Val		175
	180	185
Ser Met Gly Ser Glu Lys Leu Ala Val Val Gly Ser Pro Phe Trp Met		190
	195	200
Ala Pro Glu Val Leu Arg Asp Glu Pro Tyr Asn Glu Lys Ala Asp Val		205
	210	215
Phe Ser Tyr Gly Ile Ile Leu Cys Glu Ile Ile Ala Arg Ile Gln Ala		220
225	230	235
Asp Pro Asp Tyr Leu Pro Arg Thr Glu Asn Phe Gly Leu Asp Tyr Asp		240

				245					250					255			
Ala	Phe	Gln	His	Met	Val	Gly	Asp	Cys	Pro	Pro	Asp	Phe	Leu	Gln	Leu		
			260					265					270				
Thr	Phe	Asn	Cys	Cys	Asn	Met	Asp	Pro	Lys	Leu	Arg	Pro	Ser	Phe	Val		
		275					280					285					
Glu	Ile	Gly	Lys	Thr	Leu	Glu	Glu	Ile	Leu	Ser	Arg	Leu	Gln	Glu	Glu		
	290					295					300						
Glu	Gln	Glu	Arg	Asp	Arg	Lys	Leu	Gln	Pro	Thr	Ala	Arg	Gly	Leu	Leu		
305					310					315					320		
Glu	Lys	Ala	Pro	Gly	Val	Lys	Arg	Leu	Ser	Ser	Leu	Asp	Asp	Lys	Ile		
				325					330					335			
Pro	His	Lys	Ser	Pro	Cys	Pro	Arg	Arg	Thr	Ile	Trp	Leu	Ser	Arg	Ser		
			340					345					350				
Gln	Ser	Asp	Ile	Phe	Ser	Arg	Lys	Pro	Pro	Arg	Thr	Val	Ser	Val	Leu		
	355						360					365					
Asp	Pro	Tyr	Tyr	Arg	Pro	Arg	Asp	Gly	Ala	Ala	Arg	Thr	Pro	Lys	Val		
	370					375					380						
Asn	Pro	Phe	Ser	Ala	Arg	Gln	Asp	Leu	Met	Gly	Gly	Lys	Ile	Lys	Phe		
385					390					395					400		
Phe	Asp	Leu	Pro	Ser	Lys	Ser	Val	Ile	Ser	Leu	Val	Phe	Asp	Leu	Asp		
			405						410					415			
Ala	Pro	Gly	Pro	Gly	Thr	Met	Pro	Leu	Ala	Asp	Trp	Gln	Glu	Pro	Leu		
			420					425					430				
Ala	Pro	Pro	Ile	Arg	Arg	Trp	Arg	Ser	Leu	Pro	Gly	Ser	Pro	Glu	Phe		
	435						440					445					
Leu	His	Gln	Glu	Ala	Cys	Pro	Phe	Val	Gly	Arg	Glu	Glu	Ser	Leu	Ser		
	450				455					460							
Asp	Gly	Pro	Pro	Pro	Arg	Leu	Ser	Ser	Leu	Lys	Tyr	Arg	Val	Lys	Glu		
465					470					475					480		
Ile	Pro	Pro	Phe	Arg	Ala	Ser	Ala	Leu	Pro	Ala	Ala	Gln	Ala	His	Glu		
				485					490					495			
Ala	Met	Asp	Cys	Ser	Ile	Leu	Gln	Glu	Glu	Asn	Gly	Phe	Gly	Ser	Arg		
			500					505					510				
Pro	Gln	Gly	Thr	Ser	Pro	Cys	Pro	Ala	Gly	Ala	Ser	Glu	Glu	Met	Glu		
	515						520					525					
Val	Glu	Glu	Arg	Pro	Ala	Gly	Ser	Thr	Pro	Ala	Thr	Phe	Ser	Thr	Ser		
	530					535					540						
Gly	Ile	Gly	Leu	Gln	Thr	Gln	Gly	Lys	Gln	Asp	Gly						
545					550					555	556						

<210> 3864

<211> 305

<212> PRT

<213> Homo sapiens

<400> 3864

Ser	Trp	Asn	Met	Asp	Ser	Asp	Ser	Cys	Ala	Ala	Ala	Phe	His	Pro	Glu		
1				5				10						15			
Glu	Tyr	Ser	Pro	Ser	Cys	Lys	Arg	Arg	Arg	Thr	Val	Glu	Asp	Phe	Asn		
			20					25					30				
Lys	Phe	Cys	Thr	Phe	Val	Leu	Ala	Tyr	Ala	Gly	Tyr	Ile	Pro	Tyr	Pro		
		35					40					45					
Lys	Glu	Glu	Leu	Pro	Leu	Arg	Ser	Ser	Pro	Ser	Pro	Ala	Asn	Ser	Thr		
	50					55					60						
Ala	Gly	Thr	Ile	Asp	Ser	Asp	Gly	Trp	Asp	Ala	Gly	Phe	Ser	Asp	Ile		
65					70					75					80		
Ala	Ser	Ser	Val	Pro	Leu	Pro	Val	Ser	Asp	Arg	Cys	Phe	Ser	His	Leu		
				85					90					95			
Gln	Pro	Thr	Leu	Leu	Gln	Arg	Ala	Lys	Pro	Ser	Asn	Phe	Leu	Leu	Asp		
			100					105					110				
Arg	Lys	Lys	Thr	Asp	Lys	Leu	Lys	Lys	Lys	Lys	Lys	Arg	Lys	Arg	Arg		

115	120	125
Asp Ser Asp Ala Pro Gly Lys	Glu Gly Tyr Arg Gly Gly Leu Leu Lys	
130	135	140
Leu Glu Ala Ala Asp Pro Tyr Val Glu Thr Pro Thr Ser Pro Thr Leu		
145	150	155
Gln Asp Ile Pro Gln Ala Pro Ser Asp Pro Cys Ser Gly Trp Asp Ser		
165	170	175
Asp Thr Pro Ser Ser Gly Ser Cys Ala Thr Val Ser Pro Asp Gln Val		
180	185	190
Lys Glu Ile Lys Thr Glu Gly Lys Arg Thr Ile Val Arg Gln Glu Ala		
195	200	205
Gln Leu Met Ala Arg Asn Asp Gly Asn Phe Ser Ser Leu Leu Glu Ser		
210	215	220
Ile Phe Pro Ser Asp Asp Asp Ser Trp Asp Leu Val Thr Cys Phe Cys		
225	230	235
Met Lys Pro Phe Ala Gly Arg Pro Met Ile Glu Cys Asn Glu Cys His		
245	250	255
Thr Trp Ile His Leu Ser Cys Ala Lys Ile Arg Lys Ser Asn Val Pro		
260	265	270
Glu Val Phe Val Cys Gln Lys Cys Arg Asp Ser Lys Phe Asp Ile Arg		
275	280	285
Arg Ser Asn Arg Ser Arg Thr Gly Ser Arg Lys Leu Phe Leu Asp		
290	295	300
		303

<210> 3865

<211> 1193

<212> PRT

<213> Homo sapiens

<400> 3865

Gln Glu Arg Leu Arg Ser Arg Ser Arg Pro Asp Arg Ala Ala Arg Glu	
1	5
Ala Gly Ser Ala Arg Gly Arg Gln Pro Lys Arg Thr Glu Arg Val Glu	
20	25
Gln Phe Leu Thr Ile Ala Arg Arg Arg Gly Arg Arg Ser Met Pro Val	
35	40
Ser Leu Glu Asp Ser Gly Glu Pro Thr Ser Cys Pro Ala Thr Asp Ala	
50	55
Glu Thr Ala Ser Glu Gly Ser Val Glu Ser Ala Ser Glu Thr Arg Ser	
65	70
Gly Pro Gln Ser Ala Ser Thr Ala Val Lys Glu Arg Pro Ala Ser Ser	
85	90
Glu Lys Val Lys Gly Gly Asp Asp His Asp Asp Thr Ser Asp Ser Asp	
100	105
Ser Asp Gly Leu Thr Leu Lys Glu Leu Gln Asn Arg Leu Arg Arg Lys	
115	120
Arg Glu Gln Glu Pro Thr Glu Arg Pro Leu Lys Gly Ile Gln Ser Arg	
130	135
Leu Arg Lys Lys Arg Arg Glu Glu Gly Pro Ala Glu Thr Val Gly Ser	
145	150
Glu Ala Ser Asp Thr Val Glu Gly Val Leu Pro Ser Lys Gln Glu Pro	
165	170
Glu Asn Asp Gln Gly Val Val Ser Gln Ala Gly Lys Asp Asp Arg Glu	
180	185
Ser Lys Leu Glu Gly Lys Ala Ala Gln Asp Ile Lys Asp Glu Glu Pro	
195	200
Gly Asp Leu Gly Arg Pro Lys Pro Glu Cys Glu Gly Tyr Asp Pro Asn	
210	215
Ala Leu Tyr Cys Ile Cys Arg Gln Pro His Asn Asn Arg Phe Met Ile	
225	230
Cys Cys Asp Arg Cys Glu Glu Trp Phe His Gly Asp Cys Val Gly Ile	
	235
	240

5631

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<210> 3866
<211> 1061
<212> PRT
<213> Homo sapiens
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<400> 3866

Ala	Gln	Gln	Pro	Val	Gly	Arg	Arg	Gly	Gly	Ala	Ser	Gly	Ala	Gly	Gly
1				5				10						15	
Gly	Arg	Arg	Gly	Thr	Pro	Arg	Pro	Arg	Ala	Gly	Ala	Gly	Pro	Gly	Phe
			20					25					30		
Gln	Val	Ser	Ser	Gly	Gly	Cys	Arg	Leu	Ser	Lys	Met	Arg	Arg	Phe	Leu
		35					40					45			
Arg	Pro	Gly	His	Asp	Pro	Val	Arg	Glu	Arg	Leu	Lys	Arg	Asp	Leu	Phe
	50					55					60				
Gln	Phe	Asn	Lys	Thr	Val	Glu	His	Gly	Phe	Pro	His	Gln	Pro	Ser	Ala
	65				70					75					80
Leu	Gly	Tyr	Ser	Pro	Ser	Leu	Arg	Ile	Leu	Ala	Ile	Gly	Thr	Arg	Ser
				85					90					95	
Gly	Ala	Ile	Lys	Leu	Tyr	Gly	Ala	Pro	Gly	Val	Glu	Phe	Met	Gly	Leu
			100					105					110		
His	Gln	Glu	Asn	Asn	Ala	Val	Thr	Gln	Ile	His	Leu	Leu	Pro	Gly	Gln
		115					120					125			
Cys	Gln	Leu	Val	Thr	Leu	Leu	Asp	Asp	Asn	Ser	Leu	His	Leu	Trp	Ser
	130					135					140				
Leu	Lys	Val	Lys	Gly	Gly	Ala	Ser	Glu	Leu	Gln	Glu	Asp	Glu	Ser	Phe
145					150					155					160
Thr	Leu	Arg	Gly	Pro	Pro	Gly	Ala	Ala	Pro	Ser	Ala	Thr	Gln	Ile	Thr
				165					170					175	
Val	Val	Leu	Pro	His	Ser	Ser	Cys	Glu	Leu	Leu	Tyr	Leu	Gly	Thr	Glu
			180					185					190		
Ser	Gly	Asn	Val	Phe	Val	Val	Gln	Leu	Pro	Ala	Phe	Arg	Ala	Leu	Glu
	195						200				205				
Asp	Arg	Thr	Ile	Ser	Ser	Asp	Ala	Val	Leu	Gln	Arg	Leu	Pro	Glu	Glu
	210					215					220				
Ala	Arg	His	Arg	Arg	Val	Phe	Glu	Met	Val	Glu	Ala	Leu	Gln	Glu	His
225					230					235					240
Pro	Arg	Asp	Pro	Asn	Gln	Ile	Leu	Ile	Gly	Tyr	Ser	Arg	Gly	Leu	Val
				245					250					255	
Val	Ile	Trp	Asp	Leu	Gln	Gly	Ser	Arg	Val	Leu	Tyr	His	Phe	Leu	Ser
			260				265						270		
Ser	Gln	Gln	Leu	Glu	Asn	Ile	Trp	Trp	Gln	Arg	Asp	Gly	Arg	Leu	Leu
	275						280					285			
Val	Ser	Cys	His	Ser	Asp	Gly	Ser	Tyr	Cys	Gln	Trp	Pro	Val	Ser	Ser
	290					295					300				
Glu	Ala	Gln	Gln	Pro	Glu	Pro	Leu	Arg	Ser	Leu	Val	Pro	Tyr	Gly	Pro
305					310					315					320
Phe	Pro	Cys	Lys	Ala	Ile	Thr	Arg	Ile	Leu	Trp	Leu	Thr	Thr	Arg	Gln
				325					330					335	
Gly	Leu	Pro	Phe	Thr	Ile	Phe	Gln	Gly	Gly	Met	Pro	Arg	Ala	Ser	Tyr
			340					345					350		
Gly	Asp	Arg	His	Cys	Ile	Ser	Val	Ile	His	Asp	Gly	Gln	Gln	Thr	Ala
	355						360					365			
Phe	Asp	Phe	Thr	Ser	Arg	Val	Ile	Gly	Phe	Thr	Val	Leu	Thr	Glu	Ala
	370					375					380				
Asp	Pro	Ala	Ala	Thr	Phe	Asp	Asp	Pro	Tyr	Ala	Leu	Val	Val	Leu	Ala
385					390					395					400
Glu	Glu	Glu	Leu	Val	Val	Ile	Asp	Leu	Gln	Thr	Ala	Gly	Trp	Pro	Pro
				405					410					415	
Val	Gln	Leu	Pro	Tyr	Leu	Ala	Ser	Leu	His	Cys	Ser	Ala	Ile	Thr	Cys
			420					425					430		
Ser	His	His	Val	Ser	Asn	Ile	Pro	Leu	Lys	Leu	Trp	Glu	Arg	Ile	Ile
	435						440					445			
Ala	Ala	Gly	Ser	Arg	Gln	Asn	Ala	His	Phe	Ser	Thr	Met	Glu	Trp	Pro
	450					455					460				
Ile	Asp	Gly	Gly	Thr	Ser	Leu	Thr	Pro	Ala	Pro	Pro	Gln	Arg	Asp	Leu
465					470					475					480
Leu	Leu	Thr	Gly	His	Glu	Asp	Gly	Thr	Val	Arg	Phe	Trp	Asp	Ala	Ser
				485					490					495	
Gly	Val	Cys	Leu	Arg	Leu	Leu	Tyr	Lys	Leu	Ser	Thr	Val	Arg	Val	Phe

500							505					510			
Leu	Thr	Asp	Thr	Asp	Pro	Asn	Glu	Asn	Leu	Ser	Ala	Gln	Gly	Glu	Asp
		515					520					525			
Glu	Trp	Pro	Pro	Leu	Arg	Lys	Val	Gly	Ser	Phe	Asp	Pro	Tyr	Ser	Asp
		530					535					540			
Asp	Pro	Arg	Leu	Gly	Ile	Gln	Lys	Ile	Phe	Leu	Cys	Lys	Tyr	Ser	Gly
545					550					555			560		
Tyr	Leu	Ala	Val	Ala	Gly	Thr	Ala	Gly	Gln	Val	Leu	Val	Leu	Glu	Leu
				565					570					575	
Asn	Asp	Glu	Ala	Ala	Glu	Gln	Ala	Val	Glu	Gln	Val	Glu	Ala	Asp	Leu
				580					585					590	
Leu	Gln	Asp	Gln	Glu	Gly	Tyr	Arg	Trp	Lys	Gly	His	Glu	Arg	Leu	Ala
		595					600					605			
Ala	Arg	Ser	Gly	Pro	Val	Arg	Phe	Glu	Pro	Gly	Phe	Gln	Pro	Phe	Val
610							615					620			
Leu	Val	Gln	Cys	Gln	Pro	Pro	Ala	Val	Val	Thr	Ser	Leu	Ala	Leu	His
625					630					635			640		
Ser	Glu	Trp	Arg	Leu	Val	Ala	Phe	Gly	Thr	Ser	His	Gly	Phe	Gly	Leu
				645					650					655	
Phe	Asp	His	Gln	Gln	Arg	Arg	Gln	Val	Phe	Val	Lys	Cys	Thr	Leu	His
				660					665					670	
Pro	Ser	Asp	Gln	Leu	Ala	Leu	Glu	Gly	Pro	Leu	Ser	Arg	Val	Lys	Ser
		675					680					685			
Leu	Lys	Lys	Ser	Leu	Arg	Gln	Ser	Phe	Arg	Arg	Met	Arg	Arg	Ser	Arg
690							695					700			
Val	Ser	Ser	Arg	Lys	Arg	His	Pro	Ala	Gly	Pro	Pro	Gly	Glu	Ala	Gln
705					710					715			720		
Glu	Gly	Ser	Ala	Lys	Ala	Glu	Arg	Pro	Gly	Leu	Gln	Asn	Met	Glu	Leu
				725					730					735	
Ala	Pro	Val	Gln	Arg	Lys	Ile	Glu	Ala	Arg	Ser	Ala	Glu	Asp	Ser	Phe
				740					745					750	
Thr	Gly	Phe	Val	Arg	Thr	Leu	Tyr	Phe	Ala	Asp	Thr	Tyr	Leu	Lys	Asp
				755					760					765	
Ser	Ser	Arg	His	Cys	Pro	Ser	Leu	Trp	Ala	Gly	Thr	Asn	Gly	Gly	Thr
770							775					780			
Ile	Tyr	Ala	Phe	Ser	Leu	Arg	Val	Pro	Pro	Ala	Glu	Arg	Arg	Met	Asp
785					790					795			800		
Glu	Pro	Val	Arg	Ala	Glu	Gln	Ala	Lys	Glu	Ile	Gln	Leu	Met	His	Arg
				805					810					815	
Ala	Pro	Val	Val	Gly	Ile	Leu	Val	Leu	Asp	Gly	His	Ser	Val	Pro	Leu
				820					825					830	
Pro	Glu	Pro	Leu	Glu	Val	Ala	His	Asp	Leu	Ser	Lys	Ser	Pro	Asp	Met
				835			840					845			
Gln	Gly	Ser	His	Gln	Leu	Leu	Val	Val	Ser	Glu	Glu	Gln	Phe	Lys	Val
850							855					860			
Phe	Thr	Leu	Pro	Lys	Val	Ser	Ala	Lys	Leu	Lys	Leu	Lys	Leu	Thr	Ala
865					870					875					880
Leu	Glu	Gly	Ser	Arg	Val	Arg	Arg	Val	Ser	Val	Ala	His	Phe	Gly	Ser
				885					890					895	
Arg	Arg	Ala	Glu	Asp	Tyr	Gly	Glu	His	His	Leu	Ala	Val	Leu	Thr	Asn
				900					905					910	
Leu	Gly	Asp	Ile	Gln	Val	Val	Ser	Leu	Pro	Leu	Leu	Lys	Pro	Gln	Val
		915					920					925			
Arg	Tyr	Ser	Cys	Ile	Arg	Arg	Glu	Asp	Val	Ser	Gly	Ile	Ala	Ser	Cys
930							935					940			
Val	Phe	Thr	Lys	Tyr	Gly	Gln	Gly	Phe	Tyr	Leu	Ile	Ser	Pro	Ser	Glu
945					950					955			960		
Phe	Glu	Arg	Phe	Ser	Leu	Ser	Thr	Lys	Gly	Leu	Val	Glu	Pro	Arg	Cys
				965					970					975	
Leu	Val	Asp	Ser	Ala	Glu	Thr	Lys	Asn	His	Arg	Pro	Gly	Asn	Gly	Ala
				980					985					990	
Gly	Pro	Lys	Lys	Ala	Pro	Ser	Arg	Ala	Arg	Asn	Ser	Gly	Thr	Gln	Ser
				995			1000					1005			
Asp	Gly	Glu	Glu	Lys	Gln	Pro	Gly	Leu	Val	Met	Glu	Arg	Ala	Leu	Leu

1010 1015 1020
 Ser Asp Glu Arg Ala Ala Thr Gly Val His Ile Glu Pro Pro Trp Gly
 1025 1030 1035 1040
 Ala Ala Ser Ala Met Ala Glu Gln Ser Glu Trp Leu Ser Val Gln Ala
 1045 1050 1055
 Ala Arg
 1058

<210> 3867
 <211> 1061
 <212> PRT
 <213> Homo sapiens

<400> 3867
 Ala Gln Gln Pro Val Gly Arg Arg Gly Gly Ala Ser Gly Ala Gly Gly
 1 5 10 15
 Gly Arg Arg Gly Thr Pro Arg Pro Arg Ala Gly Ala Gly Pro Gly Phe
 20 25 30
 Gln Val Ser Ser Gly Gly Cys Arg Leu Ser Lys Met Arg Arg Phe Leu
 35 40 45
 Arg Pro Gly His Asp Pro Val Arg Glu Arg Leu Lys Arg Asp Leu Phe
 50 55 60
 Gln Phe Asn Lys Thr Val Glu His Gly Phe Pro His Gln Pro Ser Ala
 65 70 75 80
 Leu Gly Tyr Ser Pro Ser Leu Arg Ile Leu Ala Ile Gly Thr Arg Ser
 85 90 95
 Gly Ala Ile Lys Leu Tyr Gly Ala Pro Gly Val Glu Phe Met Gly Leu
 100 105 110
 His Gln Glu Asn Asn Ala Val Thr Gln Ile His Leu Leu Pro Gly Gln
 115 120 125
 Cys Gln Leu Val Thr Leu Leu Asp Asp Asn Ser Leu His Leu Trp Ser
 130 135 140
 Leu Lys Val Lys Gly Gly Ala Ser Glu Leu Gln Glu Asp Glu Ser Phe
 145 150 155 160
 Thr Leu Arg Gly Pro Pro Gly Ala Ala Pro Ser Ala Thr Gln Ile Thr
 165 170 175
 Val Val Leu Pro His Ser Ser Cys Glu Leu Leu Tyr Leu Gly Thr Glu
 180 185 190
 Ser Gly Asn Val Phe Val Val Gln Leu Pro Ala Phe Arg Ala Leu Glu
 195 200 205
 Asp Arg Thr Ile Ser Ser Asp Ala Val Leu Gln Arg Leu Pro Glu Glu
 210 215 220
 Ala Arg His Arg Arg Val Phe Glu Met Val Glu Ala Leu Gln Glu His
 225 230 235 240
 Pro Arg Asp Pro Asn Gln Ile Leu Ile Gly Tyr Ser Arg Gly Leu Val
 245 250 255
 Val Ile Trp Asp Leu Gln Gly Ser Arg Val Leu Tyr His Phe Leu Ser
 260 265 270
 Ser Gln Gln Leu Glu Asn Ile Trp Trp Gln Arg Asp Gly Arg Leu Leu
 275 280 285
 Val Ser Cys His Ser Asp Gly Ser Tyr Cys Gln Trp Pro Val Ser Ser
 290 295 300
 Glu Ala Gln Gln Pro Glu Pro Leu Arg Ser Leu Val Pro Tyr Gly Pro
 305 310 315 320
 Phe Pro Cys Lys Ala Ile Thr Arg Ile Leu Trp Leu Thr Thr Arg Gln
 325 330 335
 Gly Leu Pro Phe Thr Ile Phe Gln Gly Gly Met Pro Arg Ala Ser Tyr
 340 345 350
 Gly Asp Arg His Cys Ile Ser Val Ile His Asp Gly Gln Gln Thr Ala
 355 360 365
 Phe Asp Phe Thr Ser Arg Val Ile Gly Phe Thr Val Leu Thr Glu Ala

370	375	380
Asp Pro Ala Ala Thr Phe	Asp Asp Pro Tyr Ala	Leu Val Val Leu Ala
385	390	395
Glu Glu Glu Leu Val Val	Ile Asp Leu Gln Thr	Ala Gly Trp Pro Pro
405	410	415
Val Gln Leu Pro Tyr Leu	Ala Ser Leu His Cys	Ser Ala Ile Thr Cys
420	425	430
Ser His His Val Ser Asn	Ile Pro Leu Lys Leu	Trp Glu Arg Ile Ile
435	440	445
Ala Ala Gly Ser Arg Gln	Asn Ala His Phe Ser	Thr Met Glu Trp Pro
450	455	460
Ile Asp Gly Gly Thr Ser	Leu Thr Pro Ala Pro	Pro Gln Arg Asp Leu
465	470	475
Leu Leu Thr Gly His Glu	Asp Gly Thr Val Arg	Phe Trp Asp Ala Ser
485	490	495
Gly Val Cys Leu Arg Leu	Leu Tyr Lys Leu Ser	Thr Val Arg Val Phe
500	505	510
Leu Thr Asp Thr Asp Pro	Asn Glu Asn Leu Ser	Ala Gln Gly Glu Asp
515	520	525
Glu Trp Pro Pro Leu Arg	Lys Val Gly Ser Phe	Asp Pro Tyr Ser Asp
530	535	540
Asp Pro Arg Leu Gly Ile	Gln Lys Ile Phe Leu	Cys Lys Tyr Ser Gly
545	550	555
Tyr Leu Ala Val Ala Gly	Thr Ala Gly Gln Val	Leu Val Leu Glu Leu
565	570	575
Asn Asp Glu Ala Ala Glu	Gln Ala Val Glu Gln	Val Glu Ala Asp Leu
580	585	590
Leu Gln Asp Gln Glu Gly	Tyr Arg Trp Lys Gly	His Glu Arg Leu Ala
595	600	605
Ala Arg Ser Gly Pro Val	Arg Phe Glu Pro Gly	Phe Gln Pro Phe Val
610	615	620
Leu Val Gln Cys Gln Pro	Pro Ala Val Val Thr	Ser Leu Ala Leu His
625	630	635
Ser Glu Trp Arg Leu Val	Ala Phe Gly Thr Ser	His Gly Phe Gly Leu
645	650	655
Phe Asp His Gln Gln Arg	Arg Gln Val Phe Val	Lys Cys Thr Leu His
660	665	670
Pro Ser Asp Gln Leu Ala	Leu Glu Gly Pro Leu	Ser Arg Val Lys Ser
675	680	685
Leu Lys Lys Ser Leu Arg	Gln Ser Phe Arg Arg	Met Arg Arg Ser Arg
690	695	700
Val Ser Ser Arg Lys Arg	His Pro Ala Gly Pro	Pro Gly Glu Ala Gln
705	710	715
Glu Gly Ser Ala Lys Ala	Glu Arg Pro Gly Leu	Gln Asn Met Glu Leu
725	730	735
Ala Pro Val Gln Arg Lys	Ile Glu Ala Arg Ser	Ala Glu Asp Ser Phe
740	745	750
Thr Gly Phe Val Arg Thr	Leu Tyr Phe Ala Asp	Thr Tyr Leu Lys Asp
755	760	765
Ser Ser Arg His Cys Pro	Ser Leu Trp Ala Gly	Thr Asn Gly Gly Thr
770	775	780
Ile Tyr Ala Phe Ser Leu	Arg Val Pro Pro Ala	Glu Arg Arg Met Asp
785	790	795
Glu Pro Val Arg Ala Glu	Gln Ala Lys Glu Ile	Gln Leu Met His Arg
805	810	815
Ala Pro Val Val Gly Ile	Leu Val Leu Asp Gly	His Ser Val Pro Leu
820	825	830
Pro Glu Pro Leu Glu Val	Ala His Asp Leu Ser	Lys Ser Pro Asp Met
835	840	845
Gln Gly Ser His Gln Leu	Leu Val Val Ser Glu	Glu Gln Phe Lys Val
850	855	860
Phe Thr Leu Pro Lys Val	Ser Ala Lys Leu Lys	Leu Lys Leu Thr Ala
865	870	875
Leu Glu Gly Ser Arg Val	Arg Arg Val Ser Val	Ala His Phe Gly Ser

				885					890					895			
Arg	Arg	Ala	Glu	Asp	Tyr	Gly	Glu	His	His	Leu	Ala	Val	Leu	Thr	Asn		
			900					905						910			
Leu	Gly	Asp	Ile	Gln	Val	Val	Ser	Leu	Pro	Leu	Leu	Lys	Pro	Gln	Val		
		915					920					925					
Arg	Tyr	Ser	Cys	Ile	Arg	Arg	Glu	Asp	Val	Ser	Gly	Ile	Ala	Ser	Cys		
	930					935					940						
Val	Phe	Thr	Lys	Tyr	Gly	Gln	Gly	Phe	Tyr	Leu	Ile	Ser	Pro	Ser	Glu		
945					950					955					960		
Phe	Glu	Arg	Phe	Ser	Leu	Ser	Thr	Lys	Gly	Leu	Val	Glu	Pro	Arg	Cys		
			965					970						975			
Leu	Val	Asp	Ser	Ala	Glu	Thr	Lys	Asn	His	Arg	Pro	Gly	Asn	Gly	Ala		
		980						985					990				
Gly	Pro	Lys	Lys	Ala	Pro	Ser	Arg	Ala	Arg	Asn	Ser	Gly	Thr	Gln	Ser		
	995					1000					1005						
Asp	Gly	Glu	Glu	Lys	Gln	Pro	Gly	Leu	Val	Met	Glu	Arg	Ala	Leu	Leu		
1010					1015					1020							
Ser	Asp	Glu	Arg	Ala	Ala	Thr	Gly	Val	His	Ile	Glu	Pro	Pro	Trp	Gly		
1025				1030					1035						1040		
Ala	Ala	Ser	Ala	Met	Ala	Glu	Gln	Ser	Glu	Trp	Leu	Ser	Val	Gln	Ala		
			1045					1050					1055				
Ala	Arg																
1058																	

<210> 3868
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 <212> PRT
 <213> Homo sapiens

<400> 3868

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Phe	Leu	Ala	Gly	Ile	Val	Ser	Trp	Gly	Ile	Gly	Cys	Ala	Glu	Ala	Arg		
		20						25					30				
Arg	Pro	Gly	Val	Tyr	Ala	Arg	Val	Thr	Arg	Leu	Arg	Asp	Trp	Ile	Leu		
		35					40					45					
Glu	Ala	Thr	Thr	Lys	Ala	Ser	Met	Pro	Leu	Ala	Pro	Thr	Met	Ala	Pro		
	50					55					60						
Ala	Pro	Ala	Ala	Pro	Ser	Thr	Ala	Trp	Pro	Thr	Ser	Pro	Glu	Ser	Pro		
65					70					75					80		
Val	Val	Ser	Thr	Pro	Thr	Lys	Ser	Met	Gln	Ala	Leu	Ser	Thr	Val	Pro		
				85					90					95			
Leu	Asp	Trp	Val	Thr	Val	Pro	Lys	Leu	Gln	Glu	Cys	Gly	Ala	Arg	Pro		
		100						105					110				
Ala	Met	Glu	Lys	Pro	Thr	Arg	Val	Val	Gly	Gly	Phe	Gly	Ala	Ala	Ser		
	115						120					125					
Gly	Glu	Val	Pro	Trp	Gln	Val	Ser	Leu	Lys	Glu	Gly	Ser	Arg	His	Phe		
	130				135						140						
Cys	Gly	Ala	Thr	Val	Val	Gly	Asp	Arg	Trp	Leu	Leu	Ser	Ala	Ala	His		
145					150					155					160		
Cys	Phe	Asn	His	Thr	Lys	Val	Glu	Gln	Val	Arg	Ala	His	Leu	Gly	Thr		
			165						170				175				
Ala	Ser	Leu	Leu	Gly	Leu	Gly	Gly	Ser	Pro	Val	Lys	Ile	Gly	Leu	Arg		
		180						185					190				
Arg	Val	Val	Leu	His	Pro	Leu	Tyr	Asn	Pro	Gly	Ile	Leu	Asp	Phe	Asp		
	195					200						205					
Leu	Ala	Val	Leu	Glu	Leu	Ala	Ser	Pro	Leu	Ala	Phe	Asn	Lys	Tyr	Ile		
	210					215					220						
Gln	Pro	Val	Cys	Leu	Pro	Leu	Ala	Ile	Gln	Lys	Phe	Pro	Val	Gly	Arg		
225					230					235					240		
Lys	Cys	Met	Ile	Ser	Gly	Trp	Gly	Asn	Thr	Gln	Glu	Gly	Asn	Ala	Thr		

				245					250					255			
Lys	Pro	Glu	Leu	Leu	Gln	Lys	Ala	Ser	Val	Gly	Ile	Ile	Asp	Gln	Lys		
			260					265					270				
Thr	Cys	Ser	Val	Leu	Tyr	Asn	Phe	Ser	Leu	Thr	Asp	Arg	Met	Ile	Cys		
		275					280					285					
Ala	Gly	Phe	Leu	Glu	Gly	Lys	Val	Asp	Ser	Cys	Gln	Val	Ser	Gly	Ile		
	290					295					300						
Lys	Ala	Leu	Tyr	Glu	Ser	Glu	Leu	Ala	Asp	Ala	Arg	Arg	Val	Leu	Asp		
305					310					315				320			
Glu	Thr	Ala	Arg	Glu	Arg	Ala	Arg	Leu	Gln	Ile	Glu	Ile	Gly	Lys	Leu		
			325						330					335			
Arg	Ala	Glu	Leu	Asp	Glu	Val	Asn	Lys	Ser	Ala	Lys	Lys	Arg	Glu	Gly		
			340					345					350				
Glu	Leu	Thr	Val	Ala	Gln	Gly	Arg	Val	Lys	Asp	Leu	Glu	Ser	Leu	Phe		
		355				360						365					
His	Arg	Ser	Glu	Val	Glu	Leu	Ala	Ala	Ala	Leu	Ser	Asp	Lys	Arg	Gly		
	370				375						380						
Leu	Glu	Ser	Asp	Val	Ala	Glu	Leu	Arg	Ala	Gln	Leu	Ala	Lys	Ala	Glu		
385					390					395					400		
Asp	Gly	His	Ala	Val	Ala	Lys	Lys	Gln	Leu	Glu	Lys	Glu	Thr	Leu	Met		
			405					410						415			
Arg	Val	Asp	Leu	Glu	Asn	Arg	Cys	Gln	Ser	Leu	Gln	Glu	Glu	Leu	Asp		
			420					425					430				
Phe	Arg	Lys	Ser	Val	Phe	Glu	Glu	Glu	Val	Arg	Glu	Thr	Arg	Arg	Arg		
		435				440						445					
His	Glu	Arg	Arg	Leu	Val	Glu	Val	Asp	Ser	Ser	Arg	Gln	Gln	Glu	Tyr		
	450				455						460						
Asp	Phe	Lys	Met	Ala	Gln	Ala	Leu	Glu	Glu	Leu	Arg	Ser	Gln	His	Asp		
465				470					475					480			
Glu	Gln	Val	Arg	Leu	Tyr	Lys	Leu	Glu	Leu	Glu	Gln	Thr	Tyr	Gln	Ala		
			485					490						495			
Lys	Leu	Asp	Ser	Ala	Lys	Leu	Ser	Ser	Asp	Gln	Asn	Asp	Lys	Ala	Ala		
			500					505					510				
Ser	Ala	Ala	Arg	Glu	Glu	Leu	Lys	Glu	Ala	Arg	Met	Arg	Leu	Glu	Ser		
		515					520					525					
Leu	Ser	Tyr	Gln	Leu	Ser	Gly	Leu	Gln	Lys	Gln	Ala	Ser	Ala	Ala	Glu		
	530				535						540						
Asp	Arg	Ile	Arg	Glu	Leu	Glu	Glu	Ala	Met	Ala	Gly	Glu	Arg	Asp	Lys		
545				550						555				560			
Phe	Arg	Lys	Met	Leu	Asp	Ala	Lys	Glu	Gln	Glu	Met	Thr	Glu	Met	Arg		
			565					570						575			
Asp	Val	Met	Gln	Gln	Gln	Leu	Ala	Glu	Tyr	Gln	Glu	Leu	Leu	Asp	Val		
			580					585						590			
Lys	Leu	Ala	Leu	Asp	Met	Glu	Ile	Asn	Ala	Tyr	Arg	Lys	Leu	Leu	Glu		
		595				600						605					
Gly	Glu	Glu	Glu	Arg	Leu	Lys	Leu	Ser	Pro	Ser	Pro	Ser	Ser	Arg	Val		
	610				615						620						
Thr	Val	Ser	Arg	Ala	Thr	Ser	Ser	Ser	Ser	Gly	Ser	Leu	Ser	Ala	Thr		
625				630						635				640			
Gly	Arg	Leu	Gly	Arg	Ser	Lys	Arg	Lys	Arg	Trp	Arg	Trp	Arg	Ser	Pro		
			645					650						655			
Trp	Gln	Arg	Pro	Lys	Arg	Pro	Gly	His	Gly	His	Gly	Trp	Gln	Arg	Trp		
			660				665						670				
Leu	Pro	Pro	Gly	Pro	Ala	Gly	Leu	Gly	Leu	Gly	Gln	Arg	His	Ile	Glu		
		675				680					685						
Glu	Ile	Asp	Leu	Glu	Gly	Lys	Phe	Val	Gln	Leu	Lys	Asn	Asn	Ser	Asp		
	690				695						700						
Lys	Asp	Gln	Ser	Leu	Gly	Asn	Trp	Arg	Ile	Lys	Arg	Gln	Val	Leu	Glu		
705				710					715					720			
Gly	Glu	Glu	Ile	Ala	Tyr	Lys	Phe	Thr	Pro	Lys	Tyr	Ile	Leu	Arg	Ala		
			725					730						735			
Gly	Gln	Met	Val	Thr	Val	Trp	Ala	Ala	Gly	Ala	Gly	Val	Ala	His	Ser		
			740				745						750				
Pro	Pro	Ser	Thr	Leu	Val	Trp	Lys	Gly	Gln	Ser	Ser	Trp	Gly	Thr	Gly		

755						760					765				
Glu	Ser	Phe	Arg	Thr	Val	Leu	Val	Asn	Ala	Asp	Gly	Glu	Glu	Val	Ala
770						775					780				
Met	Arg	Thr	Val	Lys	Lys	Ser	Ser	Val	Met	Arg	Glu	Asn	Glu	Asn	Gly
785						790					795				
Glu	Glu	Glu	Glu	Glu	Glu	Ala	Glu	Phe	Gly	Glu	Glu	Asp	Leu	Phe	His
805						810					815				
Gln	Gln	Gly	Asp	Pro	Arg	Thr	Thr	Ser	Arg	Gly	Cys	Tyr	Val	Met	
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<212> PRT
<213> Homo sapiens
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Leu	Thr	Arg	Pro	Gly	Leu	Thr	Leu	Pro	Gly	Arg	Ala	Met	Phe	Ala	Arg
			20					25					30		
Gly	Ser	Arg	Arg	Arg	Arg	Ser	Gly	Arg	Ala	Pro	Pro	Glu	Ala	Glu	Asp
		35					40					45			
Pro	Asp	Arg	Gly	Gln	Pro	Cys	Asn	Ser	Cys	Arg	Glu	Gln	Cys	Pro	Gly
	50					55				60					
Phe	Leu	Leu	His	Gly	Trp	Arg	Lys	Ile	Cys	Gln	His	Cys	Lys	Cys	Pro
65					70					75					80
Arg	Glu	Glu	His	Ala	Val	His	Ala	Val	Pro	Val	Asp	Leu	Glu	Arg	Ile
				85					90					95	
Met	Cys	Arg	Leu	Ile	Ser	Asp	Phe	Gln	Arg	His	Ser	Ile	Ser	Asp	Asp
			100					105					110		
Asp	Ser	Gly	Cys	Ala	Ser	Glu	Glu	Tyr	Ala	Trp	Val	Pro	Pro	Gly	Leu
		115					120					125			
Lys	Pro	Glu	Gln	Val	Tyr	Gln	Phe	Phe	Ser	Cys	Leu	Pro	Glu	Asp	Lys
	130					135					140				
Val	Pro	Tyr	Val	Asn	Ser	Pro	Gly	Glu	Lys	Tyr	Arg	Ile	Lys	Gln	Leu
145					150					155					160
Leu	His	Gln	Leu	Pro	Pro	His	Asp	Ser	Glu	Ala	Gln	Tyr	Cys	Thr	Ala
				165					170					175	
Leu	Glu	Glu	Glu	Glu	Lys	Lys	Glu	Leu	Arg	Ala	Phe	Ser	Gln	Gln	Arg
			180					185					190		
Lys	Arg	Glu	Asn	Leu	Gly	Arg	Leu	Gly	Ile	Val	Arg	Ile	Phe	Pro	Val
		195					200					205			
Thr	Ile	Thr	Gly	Ala	Ile	Cys	Glu	Glu	Cys	Gly	Lys	Gln	Ile	Gly	Gly
	210					215						220			
Gly	Asp	Ile	Ala	Val	Phe	Ala	Ser	Arg	Ala	Ser	Leu	Gly	Leu	Leu	Leu
225					230					235					240
Gly	Gln	Pro	Ser	Cys	Phe	Val	Cys	Thr	Thr	Cys	Gln	Glu	Leu	Leu	Val
				245					250					255	
Asp	Leu	Ile	Tyr	Phe	Tyr	His	Val	Gly	Lys	Val	Tyr	Cys	Gly	Arg	His
			260					265					270		
His	Ala	Glu	Cys	Leu	Arg	Pro	Arg	Cys	Gln	Ala	Cys	Asp	Glu	Ile	Ile
		275					280					285			
Phe	Ser	Pro	Glu	Cys	Thr	Glu	Ala	Glu	Gly	Arg	His	Trp	His	Met	Asp
	290					295					300				
His	Phe	Cys	Cys	Phe	Glu	Cys	Glu	Ala	Ser	Leu	Gly	Gly	Gln	Arg	Tyr
305					310					315					320
Val	Met	Arg	Gln	Ser	Arg	Pro	His	Cys	Cys	Ala	Cys	Tyr	Glu	Ala	Arg
				325					330					335	
His	Ala	Glu	Tyr	Cys	As										

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<212> PRT
<213> Homo sapiens
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Phe	Val	Trp	Arg	Val	Phe	Tyr	Val	His	Ala	Ser	Cys	Met	Pro	Pro	Arg
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Ala	Arg	Ser	Trp	Glu	Gly	Ala	His	Ala	Pro	Val	Gly	Met	His	Val	Ala
			20					25					30		
Glu	Ala	His	Ala	Cys	Ser	Ser	Gln	Gln	Gln	Gln	Met	Pro	Pro	Ala	Gln
		35					40					45			
Phe	Trp	Met	Leu	Glu	Trp	Leu	Leu	His	Leu	Cys	Ala	Phe	Leu	Ser	Thr
	50					55					60				
Pro	Ser	Phe	Pro	His	Trp	Cys	Cys	Cys	Ser	Asn	Pro	His	Gly	Ser	Ile
65					70					75					80
Ala	Asp	Lys	Pro	Glu	Glu	Ile	Val	Pro	Ala	Ser	Lys	Pro	Ser	Arg	Ala
				85					90					95	
Ala	Glu	Asn	Met	Ala	Val	Glu	Pro	Arg	Val	Ala	Thr	Ile	Lys	Gln	Arg
		100						105					110		
Pro	Ser	Ser	Arg	Cys	Phe	Pro	Ala	Gly	Ser	Asp	Met	Asn	Ser	Val	Tyr
	115						120					125			
Glu	Arg	Gln	Gly	Ile	Ala	Val	Met	Thr	Pro	Thr	Val	Pro	Gly	Ser	Pro

130		135		140
Lys Ala Pro Phe Leu Gly Ile Pro Arg Gly Thr Met Arg Arg Gln Lys				
145		150		155
Ser Ile Asp Ser Arg Ile Phe Leu Ser Gly Ile Thr Glu Glu Glu Arg				
		165		170
Gln Phe Leu Ala Pro Pro Met Leu Lys Phe Thr Arg Ser Leu Ser Met				
		180		185
Pro Asp Thr Ser Glu Asp Ile Pro Pro Pro Gln Ser Val Pro Pro				
		195		200
Ser Pro Pro Pro Pro Ser Pro Thr Thr Tyr Asn Cys Pro Lys Ser Pro				
		210		215
Thr Pro Arg Val Tyr Gly Thr Ile Lys Pro Ala Phe Asn Gln Asn Ser				
225		230		235
Ala Ala Lys Val Ser Pro Ala Thr Arg Ser Asp Thr Val Ala Thr Met				
		245		250
Met Arg Glu Lys Gly Met Tyr Phe Arg Arg Glu Leu Asp Arg Tyr Ser				
		260		265
Leu Asp Ser Glu Asp Leu Tyr Ser Arg Asn Ala Gly Pro Gln Ala Asn				
		275		280
Phe Arg Asn Lys Arg Gly Gln Met Pro Glu Asn Pro Tyr Ser Glu Val				
		290		295
Gly Lys Ile Ala Ser Lys Ala Val Tyr Val Pro Ala Lys Pro Ala Arg				
305		310		315
Arg Lys Gly Met Leu Val Lys Gln Ser Asn Val Glu Asp Ser Pro Glu				
		325		330
Lys Thr Cys Ser Ile Pro Ile Pro Thr Ile Ile Val Lys Glu Pro Ser				
		340		345
Thr Ser Ser Ser Gly Lys Ser Ser Gln Gly Ser Ser Met Glu Ile Asp				
		355		360
Pro Gln Ala Pro Glu Pro Pro Ser Gln Leu Arg Pro Asp Glu Ser Leu				
		370		375
Thr Val Ser Ser Pro Phe Ala Ala Ala Ile Ala Gly Ala Val Arg Asp				
385		390		395
Arg Glu Lys Arg Leu Glu Ala Arg Arg Asn Ser Pro Ala Phe Leu Ser				
		405		410
Ala Asp Leu Gly Asp Glu His Val Gly Leu Gly Pro Pro Ala Pro Arg				
		420		425
Thr Arg Pro Ser Met Phe Pro Glu Glu Gly Asp Phe Ala Asp Glu Asp				
		435		440
Ser Ala Glu Gln Leu Ser Ser Pro Met Pro Ser Ala Thr Pro Arg Glu				
		450		455
Pro Glu Asn His Phe Val Gly Gly Ala Glu Ala Ser Ala Pro Gly Glu				
465		470		475
Ala Gly Arg Pro Leu Asn Ser Thr Ser Lys Ala Gln Gly Pro Glu Ser				
		485		490
Ser Pro Ala Val Pro Ser Ala Ser Ser Gly Thr Ala Gly Pro Gly Asn				
		500		505
Tyr Val His Pro Leu Thr Gly Arg Leu Leu Asp Pro Ser Ser Pro Leu				
		515		520
Ala Leu Ala Leu Ser Ala Arg Asp Arg Ala Met Lys Glu Ser Gln Gln				
		530		535
Gly Pro Lys Gly Glu Ala Pro Lys Ala Asp Leu Asn Lys Pro Leu Tyr				
545		550		555
Ile Asp Thr Lys Met Arg Pro Ser Leu Asp Ala Gly Phe Pro Thr Val				
		565		570
Thr Arg Gln Asn Thr Arg Gly Pro Leu Arg Arg Gln Glu Thr Glu Asn				
		580		585
Lys Tyr Glu Thr Asp Leu Gly Arg Asp Arg Lys Gly Asp Asp Lys Lys				
		595		600
Asn Met Leu Ile Asp Ile Met Asp Thr Ser Gln Gln Lys Ser Ala Gly				
		610		615
Leu Leu Met Val His Thr Val Asp Ala Thr Lys Leu Asp Asn Ala Leu				
625		630		635
Gln Glu Glu Asp Glu Lys Ala Glu Val Glu Met Lys Pro Asp Ser Ser				

				645					650					655			
Pro	Ser	Glu	Val	Pro	Glu	Gly	Val	Ser	Glu	Thr	Glu	Gly	Ala	Leu	Gln		
			660					665					670				
Ile	Ser	Ala	Ala	Pro	Glu	Pro	Thr	Thr	Val	Pro	Gly	Arg	Thr	Ile	Val		
		675					680					685					
Ala	Val	Gly	Ser	Met	Glu	Glu	Ala	Val	Ile	Leu	Pro	Phe	Arg	Ile	Pro		
	690					695					700						
Pro	Pro	Pro	Leu	Ala	Ser	Val	Asp	Leu	Asp	Glu	Asp	Phe	Ile	Phe	Thr		
705					710				715						720		
Glu	Pro	Leu	Pro	Pro	Pro	Leu	Glu	Phe	Ala	Asn	Ser	Phe	Asp	Ile	Pro		
				725					730					735			
Asp	Asp	Arg	Ala	Ala	Ser	Val	Pro	Ala	Leu	Ser	Asp	Leu	Val	Lys	Gln		
			740					745					750				
Lys	Lys	Ser	Asp	Thr	Pro	Gln	Ser	Pro	Ser	Leu	Asn	Ser	Ser	Gln	Pro		
	755						760					765					
Thr	Asn	Ser	Ala	Asp	Ser	Lys	Lys	Pro	Ala	Ser	Leu	Ser	Asn	Cys	Leu		
	770					775						780					
Pro	Ala	Ser	Phe	Leu	Pro	Pro	Pro	Glu	Ser	Phe	Asp	Ala	Val	Ala	Asp		
785					790					795					800		
Ser	Gly	Ile	Glu	Glu	Val	Asp	Ser	Arg	Ser	Ser	Ser	Asp	His	His	Leu		
				805					810					815			
Glu	Thr	Thr	Ser	Thr	Ile	Ser	Thr	Val	Ser	Ser	Ile	Ser	Thr	Leu	Ser		
			820					825					830				
Ser	Glu	Gly	Gly	Glu	Asn	Val	Asp	Thr	Cys	Thr	Val	Tyr	Ala	Asp	Gly		
		835					840					845					
Gln	Ala	Phe	Met	Val	Asp	Lys	Pro	Pro	Val	Pro	Pro	Lys	Pro	Lys	Met		
	850					855				860							
Lys	Pro	Ile	Ile	His	Lys	Ser	Asn	Ala	Leu	Tyr	Gln	Asp	Ala	Leu	Val		
865					870					875					880		
Glu	Glu	Asp	Val	Asp	Ser	Phe	Val	Ile	Pro	Pro	Pro	Ala	Pro	Pro	Pro		
				885					890					895			
Pro	Pro	Gly	Ser	Ala	Gln	Pro	Gly	Met	Ala	Lys	Val	Leu	Gln	Pro	Arg		
		900						905					910				
Thr	Ser	Lys	Leu	Trp	Gly	Asp	Val	Thr	Glu	Ile	Lys	Ser	Pro	Ile	Leu		
		915					920					925					
Ser	Gly	Pro	Lys	Ala	Asn	Val	Ile	Ser	Glu	Leu	Asn	Ser	Ile	Leu	Gln		
	930					935					940						
Gln	Met	Asn	Arg	Glu	Lys	Leu	Ala	Lys	Pro	Gly	Glu	Gly	Leu	Asp	Ser		
945					950					955					960		
Pro	Met	Gly	Ala	Lys	Ser	Ala	Ser	Leu	Ala	Pro	Arg	Ser	Pro	Glu	Ile		
				965					970					975			
Met	Ser	Thr	Ile	Ser	Gly	Thr	Arg	Ser	Thr	Thr	Val	Thr	Phe	Thr	Val		
		980						985					990				
Arg	Pro	Gly	Thr	Ser	Gln	Pro	Ile	Thr	Leu	Gln	Ser	Arg	Pro	Pro	Asp		
		995				1000						1005					
Tyr	Glu	Ser	Arg	Thr	Ser	Gly	Thr	Arg	Arg	Ala	Pro	Ser	Pro	Val	Val		
	1010					1015					1020						
Ser	Pro	Thr	Glu	Met	Asn	Lys	Glu	Thr	Leu	Pro	Ala	Pro	Leu	Ser	Ala		
1025					1030					1035					1040		
Ala	Thr	Ala	Ser	Pro	Ser	Pro	Ala	Leu	Ser	Asp	Val	Phe	Ser	Leu	Pro		
				1045					1050					1055			
Ser	Gln	Pro	Pro	Ser	Gly	Asp	Leu	Phe	Gly	Leu	Asn	Pro	Ala	Gly	Arg		
		1060						1065					1070				
Ser	Arg	Ser	Pro	Ser	Pro	Ser	Ile	Leu	Gln	Gln	Pro	Ile	Ser	Asn	Lys		
		1075					1080					1085					
Pro	Phe	Thr	Thr	Lys	Pro	Val	His	Leu	Trp	Thr	Lys	Pro	Asp	Val	Ala		
		1090				1095						1100					
Asp	Trp	Leu	Glu	Ser	Leu	Asn	Leu	Gly	Glu	His	Lys	Glu	Ala	Phe	Met		
1105					1110					1115					1120		
Asp	Asn	Glu	Ile	Asp	Gly	Ser	His	Leu	Pro	Asn	Leu	Gln	Lys	Glu	Asp		
				1125					1130					1135			
Leu	Ile	Asp	Leu	Gly	Val	Thr	Arg	Val	Gly	His	Arg	Met	Asn	Ile	Glu		
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Arg	Ala	Leu	Lys	Gln	Leu	Leu	Asp	Arg									

1155

11601161

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 <211> 378
 <212> PRT
 <213> Homo sapiens

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 Lys Lys Ile Lys Glu Val Thr Glu Glu Val Ala Asn Lys Val Ser Cys
 35 40 45
 Ala Met Thr Asp Glu Ile Cys Arg Leu Ser Val Leu Val Asp Glu Phe
 50 55 60
 Cys Ser Glu Phe His Pro Asn Pro Asp Val Leu Lys Ile Tyr Lys Ser
 65 70 75 80
 Glu Leu Asn Lys His Ile Glu Asp Gly Met Gly Arg Asn Leu Ala Asp
 85 90 95
 Arg Cys Thr Asp Glu Val Asn Ala Leu Val Leu Gln Thr Gln Gln Glu
 100 105 110
 Ile Ile Glu Asn Leu Lys Pro Leu Leu Pro Ala Gly Ile Gln Asp Lys
 115 120 125
 Leu His Thr Leu Ile Pro Cys Lys Lys Phe Asp Leu Ser Tyr Asn Leu
 130 135 140
 Asn Tyr His Lys Leu Cys Ser Asp Phe Gln Glu Asp Ile Val Phe Arg
 145 150 155 160
 Phe Ser Leu Gly Trp Ser Ser Leu Val His Arg Phe Leu Gly Pro Arg
 165 170 175
 Asn Ala Gln Arg Val Leu Leu Gly Leu Ser Glu Pro Ile Phe Gln Leu
 180 185 190
 Pro Arg Ser Leu Ala Ser Thr Pro Thr Ala Pro Thr Thr Pro Ala Thr
 195 200 205
 Pro Asp Asn Ala Ser Gln Glu Glu Leu Met Ile Thr Leu Val Thr Gly
 210 215 220
 Leu Ala Ser Val Thr Ser Arg Thr Ser Met Gly Ile Ile Ile Val Gly
 225 230 235 240
 Gly Val Ile Trp Lys Thr Ile Gly Trp Lys Leu Leu Ser Val Ser Leu
 245 250 255
 Thr Met Tyr Gly Ala Leu Tyr Leu Tyr Glu Arg Leu Ser Trp Thr Thr
 260 265 270
 His Ala Lys Glu Arg Ala Phe Lys Gln Gln Phe Val Asn Tyr Ala Thr
 275 280 285
 Glu Lys Leu Arg Met Ile Val Ser Ser Thr Ser Ala Asn Cys Ser His
 290 295 300
 Gln Val Lys Gln Gln Ile Ala Thr Thr Phe Ala Arg Leu Cys Gln Gln
 305 310 315 320
 Val Asp Ile Thr Gln Lys Gln Leu Glu Glu Glu Ile Ala Arg Leu Pro
 325 330 335
 Lys Glu Ile Asp Gln Leu Glu Lys Ile Gln Asn Asn Ser Lys Leu Leu
 340 345 350
 Arg Asn Lys Ala Val Gln Leu Glu Asn Glu Leu Glu Asn Phe Thr Lys
 355 360 365
 Gln Phe Leu Pro Ser Ser Asn Glu Glu Ser
 370 375 378

<210> 3872
 <211> 378

<212> PRT
 <213> Homo sapiens

<400> 3872

Val	Glu	Ser	Arg	Ser	Ala	Trp	His	Glu	Gly	Glu	Asp	Gln	Ile	Asp	Arg
1				5					10					15	
Leu	Asp	Phe	Ile	Arg	Asn	Gln	Met	Asn	Leu	Leu	Thr	Leu	Asp	Val	Lys
			20					25					30		
Lys	Lys	Ile	Lys	Glu	Val	Thr	Glu	Glu	Val	Ala	Asn	Lys	Val	Ser	Cys
		35					40					45			
Ala	Met	Thr	Asp	Glu	Ile	Cys	Arg	Leu	Ser	Val	Leu	Val	Asp	Glu	Phe
	50					55					60				
Cys	Ser	Glu	Phe	His	Pro	Asn	Pro	Asp	Val	Leu	Lys	Ile	Tyr	Lys	Ser
65					70					75					80
Glu	Leu	Asn	Lys	His	Ile	Glu	Asp	Gly	Met	Gly	Arg	Asn	Leu	Ala	Asp
				85					90					95	
Arg	Cys	Thr	Asp	Glu	Val	Asn	Ala	Leu	Val	Leu	Gln	Thr	Gln	Gln	Glu
			100					105					110		
Ile	Ile	Glu	Asn	Leu	Lys	Pro	Leu	Leu	Pro	Ala	Gly	Ile	Gln	Asp	Lys
	115					120						125			
Leu	His	Thr	Leu	Ile	Pro	Cys	Lys	Lys	Phe	Asp	Leu	Ser	Tyr	Asn	Leu
	130					135					140				
Asn	Tyr	His	Lys	Leu	Cys	Ser	Asp	Phe	Gln	Glu	Asp	Ile	Val	Phe	Arg
145					150					155					160
Phe	Ser	Leu	Gly	Trp	Ser	Ser	Leu	Val	His	Arg	Phe	Leu	Gly	Pro	Arg
			165						170					175	
Asn	Ala	Gln	Arg	Val	Leu	Leu	Gly	Leu	Ser	Glu	Pro	Ile	Phe	Gln	Leu
			180					185					190		
Pro	Arg	Ser	Leu	Ala	Ser	Thr	Pro	Thr	Ala	Pro	Thr	Thr	Pro	Ala	Thr
	195						200					205			
Pro	Asp	Asn	Ala	Ser	Gln	Glu	Glu	Leu	Met	Ile	Thr	Leu	Val	Thr	Gly
	210					215					220				
Leu	Ala	Ser	Val	Thr	Ser	Arg	Thr	Ser	Met	Gly	Ile	Ile	Ile	Val	Gly
225					230					235					240
Gly	Val	Ile	Trp	Lys	Thr	Ile	Gly	Trp	Lys	Leu	Leu	Ser	Val	Ser	Leu
			245						250					255	
Thr	Met	Tyr	Gly	Ala	Leu	Tyr	Leu	Tyr	Glu	Arg	Leu	Ser	Trp	Thr	Thr
			260					265					270		
His	Ala	Lys	Glu	Arg	Ala	Phe	Lys	Gln	Gln	Phe	Val	Asn	Tyr	Ala	Thr
	275						280					285			
Glu	Lys	Leu	Arg	Met	Ile	Val	Ser	Ser	Thr	Ser	Ala	Asn	Cys	Ser	His
	290					295					300				
Gln	Val	Lys	Gln	Gln	Ile	Ala	Thr	Thr	Phe	Ala	Arg	Leu	Cys	Gln	Gln
305					310					315					320
Val	Asp	Ile	Thr	Gln	Lys	Gln	Leu	Glu	Glu	Glu	Ile	Ala	Arg	Leu	Pro
			325						330					335	
Lys	Glu	Ile	Asp	Gln	Leu	Glu	Lys	Ile	Gln	Asn	Asn	Ser	Lys	Leu	Leu
			340					345					350		
Arg	Asn	Lys	Ala	Val	Gln	Leu	Glu	Asn	Glu	Leu	Glu	Asn	Phe	Thr	Lys
	355					360						365			
Gln	Phe	Leu	Pro	Ser	Ser	Asn	Glu	Glu	Ser						
370						375			378						

<210> 3873
 <211> 285
 <212> PRT
 <213> Homo sapiens

<400> 3873
 Pro Val Cys Thr Ala Leu Thr Pro Gly Arg Met Thr Asp Asp Lys Asp

1	5	10	15												
Val	Leu	Arg	Asp	Val	Trp	Phe	Gly	Arg	Ile	Pro	Thr	Cys	Phe	Thr	Leu
	20							25					30		
Tyr	Gln	Asp	Glu	Ile	Thr	Glu	Arg	Glu	Ala	Glu	Pro	Tyr	Tyr	Leu	Leu
	35						40					45			
Leu	Pro	Arg	Val	Ser	Tyr	Leu	Thr	Leu	Val	Thr	Asp	Lys	Val	Lys	Lys
	50					55					60				
His	Phe	Gln	Lys	Val	Met	Arg	Gln	Glu	Asp	Ile	Ser	Glu	Ile	Trp	Phe
	65				70					75					80
Glu	Tyr	Glu	Gly	Thr	Pro	Leu	Lys	Trp	His	Tyr	Pro	Ile	Gly	Leu	Leu
				85					90					95	
Phe	Asp	Leu	Leu	Ala	Ser	Ser	Ser	Ala	Leu	Pro	Trp	Asn	Ile	Thr	Val
		100						105					110		
His	Phe	Lys	Ser	Phe	Pro	Glu	Lys	Asp	Leu	Leu	His	Cys	Pro	Ser	Lys
	115						120					125			
Asp	Ala	Ile	Glu	Ala	His	Phe	Met	Ser	Cys	Met	Lys	Glu	Ala	Asp	Ala
	130					135					140				
Leu	Lys	His	Lys	Ser	Gln	Val	Ile	Asn	Glu	Met	Gln	Lys	Lys	Asp	His
	145				150					155				160	
Lys	Gln	Leu	Trp	Met	Gly	Leu	Gln	Asn	Asp	Arg	Phe	Asp	Gln	Phe	Trp
			165					170					175		
Ala	Ile	Asn	Arg	Lys	Leu	Met	Glu	Tyr	Pro	Ala	Glu	Glu	Asn	Gly	Phe
		180						185					190		
Arg	Tyr	Ile	Pro	Phe	Arg	Ile	Tyr	Gln	Thr	Thr	Thr	Glu	Arg	Pro	Phe
	195						200					205			
Ile	Gln	Lys	Leu	Phe	Arg	Pro	Val	Ala	Ala	Asp	Gly	Gln	Leu	His	Thr
	210					215					220				
Leu	Gly	Asp	Leu	Leu	Lys	Glu	Val	Cys	Pro	Ser	Ala	Ile	Asp	Pro	Glu
	225				230					235				240	
Asp	Gly	Glu	Lys	Lys	Asn	Gln	Val	Met	Ile	His	Gly	Ile	Glu	Pro	Met
			245					250					255		
Leu	Glu	Thr	Pro	Leu	Gln	Trp	Leu	Ser	Glu	His	Leu	Ser	Tyr	Pro	Asp
		260					265						270		
Asn	Phe	Leu	His	Ile	Ser	Ile	Ile	Pro	Gln	Pro	Thr	Asp			
	275						280					285			

<210> 3874

<211> 136

<212> PRT

<213> Homo sapiens

<400> 3874

Gln	Ala	Arg	Gly	Ala	Pro	Ser	Ser	Pro	Met	Cys	Pro	Leu	Pro	Leu	Ala
1				5				10					15		
Ala	Ala	Ala	Val	Ala	Ala	Pro	Arg	Ala	Pro	Leu	Arg	Leu	Leu	Asn	Arg
		20						25				30			
Gly	Leu	Ala	Ala	Ala	Met	Ser	Thr	Ala	Gln	Ser	Leu	Lys	Ser	Val	Asp
	35						40					45			
Tyr	Glu	Val	Phe	Gly	Arg	Val	Gln	Gly	Val	Cys	Phe	Arg	Met	Tyr	Thr
	50					55					60				
Glu	Asp	Glu	Ala	Arg	Lys	Ile	Gly	Val	Val	Gly	Trp	Val	Lys	Asn	Thr
	65				70					75				80	
Ser	Lys	Gly	Thr	Val	Thr	Gly	Gln	Val	Gln	Gly	Pro	Glu	Asp	Lys	Val
			85					90					95		
Asn	Ser	Met	Lys	Ser	Trp	Leu	Ser	Lys	Val	Gly	Ser	Pro	Ser	Ser	Arg
		100						105					110		
Ile	Asp	Arg	Thr	Asn	Phe	Ser	Asn	Glu	Lys	Thr	Ile	Ser	Lys	Leu	Glu
	115						120					125			
Tyr	Ser	Asn	Phe	Ser	Ile	Arg	Tyr								
	130					135	136								

<210> 3875
 <211> 299
 <212> PRT
 <213> Homo sapiens

<400> 3875
 Ser Leu Ser Ser Cys Gln Thr Asp Pro Arg Pro Met Ser Ala Pro Leu
 1 5 10 15
 Asp Ala Ala Leu His Ala Leu Gln Glu Gln Ala Arg Leu Lys Met
 20 25 30
 Arg Leu Trp Asp Leu Gln Gln Leu Arg Lys Glu Leu Gly Asp Ser Pro
 35 40 45
 Lys Asp Lys Val Pro Phe Ser Val Pro Lys Ile Pro Leu Val Phe Arg
 50 55 60
 Gly His Thr Gln Gln Asp Pro Glu Val Pro Lys Ser Leu Val Ser Asn
 65 70 75 80
 Leu Arg Ile His Cys Pro Leu Leu Ala Gly Ser Ala Leu Ile Thr Phe
 85 90 95
 Asp Asp Pro Lys Val Ala Glu Gln Val Leu Gln Gln Lys Glu His Thr
 100 105 110
 Ile Asn Met Glu Glu Cys Arg Leu Arg Val Gln Val Gln Pro Leu Glu
 115 120 125
 Leu Pro Met Val Thr Thr Ile Gln Val Met Val Ser Ser Gln Leu Ser
 130 135 140
 Gly Arg Arg Val Leu Val Thr Gly Phe Pro Ala Ser Leu Arg Leu Ser
 145 150 155 160
 Glu Glu Glu Leu Leu Asp Lys Leu Glu Ile Phe Phe Gly Lys Thr Arg
 165 170 175
 Asn Gly Gly Gly Asp Val Asp Val Arg Glu Leu Leu Pro Gly Ser Val
 180 185 190
 Met Leu Gly Phe Ala Arg Asp Gly Val Ala Gln Arg Leu Cys Gln Ile
 195 200 205
 Gly Gln Phe Thr Val Pro Leu Gly Gly Gln Gln Val Pro Leu Arg Val
 210 215 220
 Ser Pro Tyr Val Asn Gly Glu Ile Gln Lys Ala Glu Ile Arg Ser Gln
 225 230 235 240
 Pro Val Pro Arg Ser Val Leu Val Leu Asn Ile Pro Asp Ile Leu Asp
 245 250 255
 Gly Pro Glu Leu His Asp Val Leu Glu Ile His Phe Gln Lys Pro Thr
 260 265 270
 Arg Gly Gly Gly Glu Val Glu Ala Leu Thr Val Val Pro Gln Gly Gln
 275 280 285
 Gln Gly Leu Ala Val Phe Thr Ser Glu Ser Gly
 290 295 299

<210> 3876
 <211> 135
 <212> PRT
 <213> Homo sapiens

<400> 3876
 Arg Met Met Lys Cys Pro Gln Ala Leu Leu Ala Ile Phe Trp Leu Leu
 1 5 10 15
 Leu Ser Trp Val Ser Ser Glu Asp Lys Val Val Gln Ser Pro Leu Ser
 20 25 30
 Leu Val Val His Glu Gly Asp Thr Val Thr Leu Asn Cys Ser Tyr Glu
 35 40 45
 Val Thr Asn Phe Arg Ser Leu Leu Trp Tyr Lys Gln Glu Lys Lys Ala

50	55	60
Pro Thr Phe Leu Phe Met Leu Thr Ser Ser Gly Ile Glu Lys Lys Ser		
65	70	75
Gly Arg Leu Ser Ser Ile Leu Asp Lys Lys Glu Leu Ser Ser Ile Leu		80
	85	90
Asn Ile Thr Ala Thr Gln Thr Gly Asp Ser Ala Ile Tyr Leu Cys Ala		95
	100	105
Val Glu Ala Gln Cys Ser Leu Val Thr Cys Ser Leu Tyr Ser Asn Ser		110
	115	120
Thr Ala Glu Ala Leu Gln Leu		125
130	135	

<210> 3877

<211> 429

<212> PRT

<213> Homo sapiens

<400> 3877

Lys Ala Phe Arg Leu Leu Ala Glu Arg Gly Ala Ala Ala Ala Met Leu	
1	5
Trp Ser Gly Cys Arg Arg Phe Gly Ala Arg Leu Gly Cys Leu Pro Gly	
	20
Gly Leu Arg Val Leu Val Gln Thr Gly His Arg Ser Leu Thr Ser Cys	
	35
Ile Asp Pro Ser Met Gly Leu Asn Glu Glu Gln Lys Glu Phe Gln Lys	
	50
Val Ala Phe Asp Phe Ala Ala Arg Glu Met Ala Pro Asn Met Ala Glu	
65	70
Trp Asp Gln Lys Glu Leu Phe Pro Val Asp Val Met Arg Lys Ala Ala	
	85
Gln Leu Gly Phe Gly Gly Val Tyr Ile Gln Thr Asp Val Gly Gly Ser	
	100
Gly Leu Ser Arg Leu Asp Thr Ser Val Ile Phe Glu Ala Leu Ala Thr	
	115
Gly Cys Thr Ser Thr Thr Ala Tyr Ile Ser Ile His Asn Met Cys Ala	
	130
Trp Met Ile Asp Ser Phe Gly Asn Glu Glu Gln Arg His Lys Phe Cys	
145	150
Pro Pro Leu Cys Thr Met Glu Lys Phe Ala Ser Tyr Cys Leu Thr Glu	
	165
Pro Gly Ser Gly Ser Asp Ala Ala Ser Leu Leu Thr Ser Ala Lys Lys	
	180
Gln Gly Asp His Tyr Ile Leu Asn Gly Ser Lys Ala Phe Ile Ser Gly	
	195
Ala Gly Glu Ser Asp Ile Tyr Val Val Met Cys Arg Thr Gly Gly Pro	
	210
Gly Pro Lys Gly Ile Ser Cys Ile Val Val Glu Lys Gly Thr Pro Gly	
225	230
Leu Ser Phe Gly Lys Lys Glu Lys Lys Val Gly Trp Asn Ser Gln Pro	
	245
Thr Arg Ala Val Ile Phe Glu Asp Cys Ala Val Pro Val Ala Asn Arg	
	260
Ile Gly Ser Glu Gly Gln Gly Phe Leu Ile Ala Val Arg Gly Leu Asn	
	275
Gly Gly Arg Ile Asn Ile Ala Ser Cys Ser Leu Gly Ala Ala His Ala	
	290
Ser Val Ile Leu Thr Arg Asp His Leu Asn Val Arg Lys Gln Phe Gly	
305	310
Glu Pro Leu Ala Ser Asn Gln Tyr Leu Gln Phe Thr Leu Ala Asp Met	
	325
Ala Thr Arg Leu Val Ala Ala Arg Leu Met Val Arg Asn Ala Ala Val	
	330
	335

	340		345		350										
Ala	Leu	Gln	Glu	Glu	Arg	Lys	Asp	Ala	Val	Ala	Leu	Cys	Ser	Met	Ala
	355		360		365										
Lys	Leu	Phe	Ala	Thr	Asp	Glu	Cys	Phe	Ala	Ile	Cys	Asn	Gln	Ala	Leu
	370		375		380										
Gln	Met	His	Gly	Gly	Tyr	Gly	Tyr	Leu	Lys	Asp	Tyr	Ala	Val	Gln	Gln
385			390		395				400						
Tyr	Val	Arg	Asp	Ser	Arg	Val	His	Gln	Ile	Leu	Glu	Gly	Ser	Asn	Glu
		405			410				415						
Val	Met	Arg	Ile	Leu	Ile	Ser	Arg	Ser	Leu	Leu	Gln	Glu			
	420		425		429										

<210> 3878

<211> 335

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(335)

<223> Xaa = any amino acid or nothing

	<400>	3878													
Leu	Pro	Gly	Ser	Thr	Ile	Ser	Ser	Ser	Gly	Cys	Gln	Ala	Pro	Gly	Arg
1		5		10		15									
Ala	Asp	Ser	Ser	Gly	Gly	Ala	Arg	Asn	Ser	Arg	Arg	Gly	Asp	Ser	Arg
	20		25		30										
Pro	Gly	Ser	Cys	Asn	Arg	Gln	Ala	Val	Ala	Pro	Pro	Cys	Pro	Ser	Pro
	35		40		45										
Gly	Pro	Gln	Ser	Arg	His	Trp	Ile	His	Arg	Gly	Thr	Ala	Pro	Gln	Ala
	50		55		60										
Gly	Glu	Thr	Arg	Thr	Leu	Gly	Arg	Gly	Ser	Ser	Ala	Pro	Asn	Ala	Cys
65			70		75				80						
Ser	Ala	Ser	Val	Thr	Pro	Cys	Cys	Pro	Ser	Ser	Pro	Pro	Ser	Xaa	Ser
		85		90		95									
Cys	Leu	Xaa	Pro	Thr	Arg	Arg	Ser	Pro	Gln	Asn	Ser	Ser	Ser	Thr	Glu
	100		105		110										
Val	Tyr	Arg	Gly	Phe	Trp	Gln	His	Gly	Leu	Pro	Ser	Thr	Xaa	Xaa	Pro
	115		120		125										
Phe	Ser	Ser	Xaa	Gln	Trp	Pro	Gly	Gln	His	Thr	Gln	Gly	Cys	Ser	Lys
	130		135		140										
Leu	Leu	Gly	Lys	Gln	Thr	Thr	His	Leu	Pro	Cys	Ser	Thr	Trp	Pro	Ala
145			150		155				160						
Xaa	Xaa	Pro	Ser	Pro	Ser	Cys	Leu	Thr	Arg	Phe	Arg	Xaa	Trp	Xaa	Pro
	165		170		175										
Ser	Leu	Met	Cys	Leu	Trp	Ala	Ser	Ser	Cys	Ser	Val	Cys	Val	Xaa	Ser
	180		185		190										
Pro	Ser	Gly	Ser	Cys	Arg	His	Xaa	Leu	Trp	Gly	Thr	His	Ser	Thr	Ser
	195		200		205										
Arg	Thr	Cys	Xaa	Ala	Arg	Arg	Ser	Ser	Ala	Leu	Pro	Thr	Gly	Leu	Cys
	210		215		220										
Thr	Asp	Asp	Thr	Ser	Trp	Ala	Ser	Ser	Ser	Lys	Ala	Arg	Pro	Cys	Ala
225			230		235				240						
Leu	Gln	Arg	Pro	Ser	Ser	Leu	Ser	Ser	Leu	Ser	Pro	Cys	Leu	Thr	Cys
	245		250		255										
Xaa	Trp	Xaa	Leu	Ser	Ser	Ser	Ser	Pro	Met	Ser	Ala	Arg	Ser	Pro	Ala
	260		265		270										
Gly	Ala	Glu	Thr	Gly	Ser	Trp	Ala	Thr	Gly	Ser	Pro	Arg	Leu	Thr	Gln
	275		280		285										
Trp	Lys	Ser	Ser	Arg	Leu	Thr	Ser	Thr	Ser	His	Ser	Ala	Arg	Ser	Ala
	290		295		300										
Trp	Lys	Pro	Ser	Ala	Thr	Glu	Ser	Thr	Pro	Ser	Trp	Pro	Arg	Phe	Ser

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<210> 3879
<211> 166
<212> PRT
<213> Homo sapiens
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<210> 3880
<211> 47
<212> PRT
<213> Homo sapiens
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<210> 3881
<211> 354
<212> PRT
<213> Homo sapiens
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5649

			20					25					30				
Ala	Cys	Arg	Ile	Met	Pro	Thr	Thr	Val	Asp	Asp	Val	Leu	Glu	His	Gly		
		35						40					45				
Gly	Glu	Phe	His	Phe	Phe	Gln	Lys	Gln	Met	Phe	Phe	Leu	Leu	Ala	Leu		
	50					55					60						
Leu	Ser	Ala	Thr	Phe	Ala	Pro	Ile	Tyr	Val	Gly	Ile	Val	Phe	Leu	Gly		
65					70					75					80		
Phe	Thr	Pro	Asp	His	Arg	Cys	Arg	Ser	Pro	Gly	Val	Ala	Glu	Leu	Ser		
			85					90						95			
Leu	Arg	Cys	Gly	Trp	Ser	Pro	Ala	Glu	Glu	Leu	Asn	Tyr	Thr	Val	Pro		
		100						105					110				
Gly	Pro	Gly	Pro	Ala	Gly	Glu	Ala	Ser	Pro	Arg	Gln	Cys	Arg	Arg	Tyr		
	115					120						125					
Glu	Val	Asp	Trp	Asn	Gln	Ser	Thr	Phe	Asp	Cys	Val	Asp	Pro	Leu	Ala		
130					135					140							
Ser	Leu	Asp	Thr	Asn	Arg	Ser	Arg	Leu	Pro	Leu	Gly	Pro	Cys	Arg	Asp		
145				150						155					160		
Gly	Trp	Val	Tyr	Glu	Thr	Pro	Gly	Ser	Ser	Ile	Val	Thr	Glu	Phe	Asn		
		165						170						175			
Leu	Val	Cys	Ala	Asn	Ser	Trp	Met	Leu	Asp	Leu	Phe	Gln	Ser	Ser	Val		
		180					185						190				
Asn	Val	Gly	Phe	Phe	Ile	Gly	Ser	Met	Ser	Ile	Gly	Tyr	Ile	Ala	Asp		
	195					200						205					
Arg	Phe	Gly	Arg	Lys	Leu	Cys	Leu	Leu	Thr	Thr	Val	Leu	Ile	Asn	Ala		
210					215						220						
Ala	Ala	Gly	Val	Leu	Met	Ala	Ile	Ser	Pro	Thr	Tyr	Thr	Trp	Met	Leu		
225				230						235					240		
Ile	Phe	Arg	Leu	Ile	Gln	Gly	Leu	Val	Ser	Lys	Ala	Gly	Trp	Leu	Ile		
		245						250						255			
Gly	Tyr	Ile	Leu	Ile	Thr	Glu	Phe	Val	Gly	Arg	Arg	Tyr	Arg	Arg	Thr		
	260							265						270			
Val	Gly	Ile	Phe	Tyr	Gln	Val	Ala	Tyr	Thr	Val	Gly	Leu	Leu	Val	Leu		
	275						280						285				
Ala	Gly	Val	Ala	Tyr	Ala	Leu	Pro	His	Trp	Arg	Trp	Leu	Gln	Phe	Thr		
290						295					300						
Val	Ala	Leu	Pro	Asn	Phe	Phe	Phe	Leu	Leu	Tyr	Tyr	Trp	Cys	Ile	Pro		
305				310						315					320		
Glu	Ser	Pro	Arg	Trp	Leu	Ile	Ser	Gln	Asn	Lys	Asn	Ala	Glu	Ala	Met		
		325						330						335			
Arg	Ile	Ile	Lys	His	Ile	Ala	Lys	Lys	Asn	Gly	Lys	Ser	Leu	Pro	Ala		
		340						345					350				
Ser	Leu																
	354																

<210> 3882

<211> 349

<212> PRT

<213> Homo sapiens

<400> 3882

Lys	Ser	Lys	Cys	Arg	Phe	Pro	Glu	Gly	Leu	Ser	Glu	Gly	Phe	Gly	Pro		
1			5						10					15			
Met	Arg	Lys	Glu	Ala	Leu	Ser	Ser	Gly	Ser	Val	Gln	Glu	Ala	Glu	Ala		
		20						25					30				
Met	Leu	Asp	Glu	Pro	Gln	Glu	Gln	Ala	Glu	Gly	Ser	Leu	Thr	Val	Tyr		
	35					40						45					
Val	Ile	Ser	Glu	His	Ser	Ser	Leu	Leu	Pro	Gln	Asp	Met	Met	Ser	Tyr		
	50				55					60							
Ile	Gly	Pro	Lys	Arg	Thr	Ala	Val	Val	Arg	Gly	Ile	Met	His	Arg	Glu		
65				70					75						80		
Ala	Phe	Asn	Ile	Ile	Gly	Arg	Arg	Ile	Val	Gln	Val	Ala	Gln	Ala	Met		


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<210> 3883
<211> 510
<212> PRT
<213> Homo sapiens

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<221> misc_feature
<222> (1)...(508)
<223> Xaa = any amino acid or nothing
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<400> 3883															
Arg	Ile	His	Arg	Glu	Glu	Asp	Phe	Gln	Phe	Ile	Leu	Lys	Gly	Ile	Ala
1				5					10					15	
Arg	Leu	Leu	Ser	Asn	Pro	Leu	Leu	Gln	Thr	Tyr	Leu	Pro	Asn	Ser	Thr
			20					25					30		
Lys	Lys	Ile	Gln	Phe	His	Gln	Glu	Leu	Leu	Val	Leu	Phe	Trp	Lys	Leu
		35					40					45			
Cys	Asp	Phe	Asn	Lys	Val	Gly	Gln	Pro	Arg	Gly	Ala	Leu	Gln	Gly	Asp
	50					55					60				
Gly	Glu	Gln	Leu	Pro	Gln	Xaa	Pro	Gly	Gly	Arg	Asp	Ser	Val	Arg	Leu
65					70					75					80
Arg	Gly	Val	Gly	Gln	Ser	Cys	Pro	Ser	Leu	Glu	Leu	Ser	Pro	Leu	Gly
				85					90					95	
Pro	Ser	Pro	His	Pro	Xaa	Lys	Phe	Leu	Phe	Phe	Val	Leu	Lys	Ser	Ser
			100					105					110		
Asp	Val	Leu	Asp	Ile	Leu	Val	Pro	Ile	Leu	Phe	Phe	Leu	Asn	Asp	Ala
		115					120					125			
Arg	Ala	Asp	Gln	Ser	Arg	Val	Gly	Leu	Met	His	Ile	Gly	Val	Phe	Ile

130	135	140
Leu Leu Leu Leu Ser Gly	Glu Cys Asn Phe Gly	Val Arg Leu Asn Lys
145	150	155
Pro Tyr Ser Ile Arg Val	Pro Met Asp Ile Pro	Val Phe Thr Gly Thr
165	170	175
His Ala Asp Leu Leu Ile Val	Val Phe His Lys Ile	Ile Thr Ser Gly
180	185	190
His Gln Arg Leu Gln Pro Leu	Phe Asp Cys Leu Leu	Thr Ile Val Val
195	200	205
Asn Val Ser Pro Tyr Leu Lys	Ser Leu Ser Met Val	Thr Ala Asn Lys
210	215	220
Leu Leu His Leu Leu Glu Ala	Phe Ser Thr Thr Trp	Phe Leu Phe Ser
225	230	235
Ala Ala Gln Asn His His Leu	Val Phe Phe Leu Leu	Glu Val Phe Asn
245	250	255
Asn Ile Ile Gln Tyr Gln Phe	Asp Gly Asn Ser Asn	Leu Val Tyr Ala
260	265	270
Ile Ile Arg Lys Arg Ser Ile	Phe His Gln Leu Ala	Asn Leu Pro Thr
275	280	285
Asp Pro Pro Thr Ile His Lys	Ala Leu Gln Arg Arg	Arg Arg Thr Pro
290	295	300
Glu Pro Leu Ser Arg Thr Gly	Ser Gln Gly Gly Ala	Pro Pro Trp Arg
305	310	315
Ala Pro Ala Pro Leu Pro Leu	Gln Ser Gln Ala Pro	Ser Arg Pro Val
325	330	335
Trp Trp Leu Leu Gln Ala Leu	Thr Ser Xaa Pro Arg	Ser Pro Arg Cys
340	345	350
Gln Arg Met Ala Pro Cys Gly	Pro Trp Asn Leu Ser	Pro Ser Arg Ala
355	360	365
Trp Arg Met Ala Ala Arg Leu	Arg Gly Ser Pro Ala	Arg His Gly Gly
370	375	380
Ser Ser Gly Asp Arg Pro His	Ser Ser Ala Ser Gly	Gln Trp Ser Pro
385	390	395
Thr Pro Glu Trp Val Leu Ser	Trp Lys Ser Lys Leu	Pro Leu Gln Thr
405	410	415
Ile Met Arg Leu Leu Gln Val	Leu Val Pro Gln Val	Glu Lys Ile Cys
420	425	430
Ile Asp Lys Gly Leu Thr Asp	Glu Ser Glu Ile Leu	Arg Phe Leu Gln
435	440	445
His Gly Thr Leu Val Gly Leu	Leu Leu Pro Val Pro	His Pro Ile Leu Ile
450	455	460
Arg Lys Tyr Gln Ala Asn Ser	Gly Thr Ala Met Trp	Phe Arg Thr Tyr
465	470	475
Met Trp Gly Val Ile Tyr Leu	Arg Asn Val Asp Pro	Pro Val Trp Tyr
485	490	495
Asp Thr Asp Val Lys Leu Phe	Glu Ile Gln Arg Val	
500	505	508

<210> 3884

<211> 268

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(267)

<223> Xaa = any amino acid or nothing

<400> 3884

Asn Gly Pro Arg Ala Pro Phe	Ser Gln Glu Gly Gln Ser Thr	Gly Pro
1	5	10
Pro Pro Leu Ile Pro Arg Leu	Gly Gln His Gly Ala Gln	Gly Arg Ile

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<210> 3885
<211> 332
<212> PRT
<213> Homo sapiens
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<400> 3885																
Gly	Arg	Arg	Arg	Ala	Gly	Pro	Ala	His	Ser	Ala	Arg	Met	Tyr	Asn	Met	
1				5					10					15		
Met	Glu	Thr	Glu	Leu	Lys	Pro	Pro	Gly	Pro	Gln	Gln	Thr	Ser	Gly	Gly	
			20					25						30		
Gly	Gly	Gly	Asn	Ser	Thr	Ala	Ala	Ala	Ala	Gly	Gly	Asn	Gln	Lys	Asn	
			35					40						45		
Ser	Pro	Asp	Arg	Val	Lys	Arg	Pro	Met	Asn	Ala	Phe	Met	Val	Trp	Ser	
	50					55					60					
Arg	Gly	Gln	Arg	Arg	Lys	Met	Ala	Gln	Glu	Asn	Pro	Lys	Met	His	Asn	
					70					75					80	
Ser	Glu	Ile	Ser	Lys	Arg	Leu	Gly	Ala	Glu	Trp	Lys	Leu	Leu	Ser	Glu	
				85					90					95		
Thr	Glu	Lys	Arg	Pro	Phe	Ile	Asp	Glu	Ala	Lys	Arg	Leu	Arg	Ala	Leu	
			100					105						110		
His	Met	Lys	Glu	His	Pro	Asp	Tyr	Lys	Tyr	Arg	Pro	Arg	Arg	Lys	Thr	
		115					120					125				
Lys	Thr	Leu	Met	Lys	Lys	Asp	Lys	Tyr	Thr	Leu	Pro	Gly	Gly	Leu	Leu	
	130					135					140					
Ala	Pro	Gly	Gly	Asn	Ser	Met	Ala	Ser	Gly	Val	Gly	Val	Gly	Ala	Gly	
145					150					155					160	
Leu	Gly	Ala	Gly	Val	Asn	Gln	Arg	Met	Asp	Ser	Tyr	Ala	His	Met	Asn	
				165					170					175		
Gly	Trp	Ser	Asn	Gly	Ser	Tyr	Ser	Met	Met	Gln	Asp	Gln	Leu	Gly	Tyr	

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<210> 3886
<211> 154
<212> PRT
<213> Homo sapiens
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```
<210> 3887
<211> 154
<212> PRT
<213> Homo sapiens
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5654

35	40	45
Thr Ser Gln Glu Ser Phe Ala His Val Arg Tyr Trp Leu Asp Cys Leu		
50	55	60
Gln Asp Ala Gly Ser Asp Gly Val Val Ile Leu Leu Leu Gly Asn Lys		
65	70	75
Met Asp Cys Glu Glu Glu Arg Gln Val Ser Val Glu Ala Gly Gln Gln		80
	85	90
Leu Ala Gln Glu Leu Gly Val Tyr Phe Gly Glu Cys Ser Ala Ala Leu		95
	100	105
Gly His Asn Ile Leu Glu Pro Val Val Asn Leu Ala Arg Ser Leu Arg		110
	115	120
Met Gln Glu Glu Gly Leu Lys Asp Ser Leu Val Lys Val Ala Pro Lys		125
	130	135
Arg Pro Pro Lys Arg Phe Gly Cys Cys Ser		140
145	150	154

<210> 3888
 <211> 89
 <212> PRT
 <213> Homo sapiens

<400> 3888

Gln Asn Ile Asp Ile Thr Asn Phe Ser Ser Ser Trp Asn Asp Gly Leu	
1	5
Ala Phe Cys Ala Leu Leu His Thr Tyr Leu Pro Ala His Ile Pro Tyr	10
	15
	20
Gln Glu Leu Asn Ser Gln Asp Lys Arg Arg Asn Phe Met Leu Ala Phe	25
	30
	35
Gln Ala Ala Glu Ser Val Gly Ile Lys Ser Thr Leu Asp Ile Asn Glu	40
	45
	50
Met Val Arg Thr Glu Arg Pro Asp Trp Gln Asn Val Met Leu Tyr Val	55
	60
65	70
Thr Ala Ile Tyr Lys Tyr Phe Glu Thr	75
	80
	85
	89

<210> 3889
 <211> 386
 <212> PRT
 <213> Homo sapiens

<400> 3889

Leu Val Val Thr Ala Ile Thr Ala Ile Leu Ala Phe Pro Asn Glu Tyr	
1	5
Thr Arg Met Ser Thr Ser Glu Leu Ile Ser Glu Leu Phe Asn Asp Cys	10
	15
	20
Gly Leu Leu Asp Ser Ser Lys Leu Cys Asp Tyr Glu Asn Arg Phe Asn	25
	30
	35
Thr Ser Lys Gly Gly Glu Leu Pro Asp Arg Pro Ala Gly Val Gly Val	40
	45
	50
Tyr Ser Ala Met Trp Gln Leu Ala Leu Thr Leu Ile Leu Lys Ile Val	55
	60
65	70
Ile Thr Ile Phe Thr Phe Gly Met Lys Ile Pro Ser Gly Leu Phe Ile	75
	80
	85
Pro Ser Met Ala Val Gly Ala Ile Ala Gly Arg Leu Leu Gly Val Gly	90
	95
	100
Met Glu Gln Leu Ala Tyr Tyr His Gln Glu Trp Thr Val Phe Asn Ser	105
	110
	115
Trp Cys Ser Gln Gly Ala Asp Cys Ile Thr Pro Gly Leu Tyr Ala Met	120
	125

130	135	140
Val Gly Ala Ala Ala Cys Leu Gly Gly Val Thr Arg Met Thr Val Ser		
145	150	155
Leu Val Val Ile Met Phe Glu Leu Thr Gly Gly Leu Glu Tyr Ile Val		160
	165	170
Pro Leu Met Ala Ala Ala Met Thr Ser Lys Trp Val Ala Asp Ala Leu		175
	180	185
Gly Arg Glu Gly Ile Tyr Asp Ala His Ile Arg Leu Asn Gly Tyr Pro		190
	195	200
Phe Leu Glu Ala Lys Glu Glu Phe Ala His Lys Thr Leu Ala Met Asp		205
	210	215
Val Met Lys Pro Arg Arg Asn Asp Pro Leu Leu Thr Val Leu Thr Gln		220
225	230	235
Asp Ser Met Thr Val Glu Asp Val Glu Thr Ile Ile Ser Glu Thr Thr		240
	245	250
Tyr Ser Gly Phe Pro Val Val Val Ser Arg Glu Ser Gln Arg Leu Val		255
	260	265
Gly Phe Val Leu Arg Arg Asp Leu Ile Ile Ser Ile Glu Asn Ala Arg		270
	275	280
Lys Lys Gln Asp Gly Val Val Ser Thr Ser Ile Ile Tyr Phe Thr Glu		285
	290	295
His Ser Pro Pro Leu Pro Pro Tyr Thr Pro Pro Thr Leu Lys Leu Arg		300
305	310	315
Asn Ile Leu Asp Leu Ser Pro Phe Thr Val Thr Asp Leu Thr Pro Met		320
	325	330
Glu Ile Val Val Asp Ile Phe Arg Lys Leu Gly Leu Arg Gln Cys Leu		335
	340	345
Val Thr His Asn Gly Arg Leu Leu Gly Ile Ile Thr Lys Lys Asp Val		350
	355	360
Leu Lys His Ile Ala Gln Met Ala Asn Gln Asp Pro Asp Ser Ile Leu		365
	370	375
		380
Phe Asn		
385 386		

<210> 3890
 <211> 129
 <212> PRT
 <213> Homo sapiens

<400> 3890
 Ser Trp Cys Trp Thr Gly Ile Phe Val Leu Gly Thr Thr Asn Leu Arg
 1 5 10 15
 Leu Glu Gly Ser Trp Tyr Arg Ser Leu Trp Gly Pro Gly Phe Asn Thr
 20 25 30
 Thr Thr Ala Thr Leu Gly Phe Gly Ala Pro Gln Ala Pro Val Gly Asp
 35 40 45
 Val Ala Leu Asn Gln Pro Asp Met Cys Val Tyr Arg Arg Gly Arg Lys
 50 55 60
 Lys Arg Val Pro Tyr Thr Lys Leu Gln Leu Lys Glu Leu Glu Asn Glu
 65 70 75 80
 Tyr Ala Ile Asn Lys Phe Ile Asn Lys Asp Lys Arg Arg Arg Ile Ser
 85 90 95
 Ala Ala Thr Asn Leu Ser Glu Arg Gln Val Thr Ile Trp Phe Gln Asn
 100 105 110
 Arg Arg Val Lys Asp Lys Lys Ile Val Ser Lys Leu Lys Asp Thr Val
 115 120 125
 Ser
 129

<210> 3891
 <211> 978
 <212> PRT
 <213> Homo sapiens

 <221> misc_feature
 <222> (1)...(967)
 <223> Xaa = any amino acid or nothing

<400> 3891
 Arg Gly Gly Gly Gly Asp His Lys Met Ala Asp Leu Ser Leu Leu Gln
 1 5 10 15
 Glu Asp Leu Gln Glu Asp Ala Asp Gly Phe Gly Val Asp Asp Tyr Ser
 20 25 30
 Ser Glu Ser Asp Val Ile Ile Ile Pro Ser Ala Leu Asp Leu Ala Ser
 35 40 45
 Thr Gln Asp Glu Met Val Glu Arg Pro Leu Gly Arg Leu Asp Lys Tyr
 50 55 60
 Ala Ala Ser Glu Asn His Ile Xaa Pro Asp Lys Met Val Ala Pro Glu
 65 70 75 80
 Phe Ala Ser Ile Pro Leu Arg Glu Val Cys Asp Asp Glu Arg Asp Cys
 85 90 95
 Ile Ala Val Leu Gly Lys Asn Xaa Pro Asp Trp Ala Asp Asp Ser Glu
 100 105 110
 Pro Thr Val Arg Ala Ala Glu Leu Glu Gln Val Pro His Ile Ala Leu
 115 120 125
 Phe Leu Phe Lys Lys Thr Arg Leu Ser Ile Thr Ile Cys Phe Phe Ser
 130 135 140
 Lys Phe Leu Leu Pro Tyr Cys Gly Leu Asp Thr Leu Ala Asp Gln Asn
 145 150 155 160
 Asn Gln Val Arg Lys Thr Ser Gln Ala Ala Leu Leu Ala Leu Leu Glu
 165 170 175
 Gln Glu Leu Ile Glu Arg Phe Asp Val Glu Thr Lys Val Cys Pro Val
 180 185 190
 Leu Ile Glu Leu Thr Ala Pro Asp Ser Asn Asp Asp Val Lys Thr Glu
 195 200 205
 Ala Val Ala Ile Met Cys Lys Met Ala Pro Met Val Gly Lys Asp Ile
 210 215 220
 Thr Glu Arg Leu Ile Leu Pro Arg Phe Cys Glu Met Cys Cys Asp Cys
 225 230 235 240
 Arg Met Phe His Val Arg Lys Val Cys Ala Ala Asn Phe Gly Asp Ile
 245 250 255
 Cys Ser Val Val Gly Gln Gln Ala Thr Glu Glu Met Leu Leu Pro Arg
 260 265 270
 Phe Phe Gln Leu Cys Ser Asp Asn Val Trp Gly Val Arg Lys Ala Cys
 275 280 285
 Ala Glu Cys Phe Met Ala Val Ser Cys Ala Thr Cys Gln Glu Ile Arg
 290 295 300
 Arg Thr Lys Leu Ser Ala Leu Phe Ile Asn Leu Ile Ser Asp Pro Ser
 305 310 315 320
 Arg Trp Val Arg Gln Ala Ala Phe Gln Ser Leu Gly Pro Phe Ile Ser
 325 330 335
 Thr Phe Ala Asn Pro Ser Ser Ser Gly Gln Tyr Phe Lys Glu Glu Ser
 340 345 350
 Lys Ser Ser Glu Glu Met Ser Val Glu Asn Asn Lys Arg Thr Arg Asp
 355 360 365
 Gln Glu Ala Pro Glu Asp Val Gln Val Arg Pro Glu Asp Thr Pro Ser
 370 375 380
 Asp Leu Ser Val Ser Asn Ser Ser Val Ile Leu Glu Asn Thr Met Glu
 385 390 395 400
 Asp His Ala Ala Glu Ala Ser Gly Lys Pro Leu Gly Glu Ile Ser Val
 405 410 415
 Pro Leu Asp Ser Ser Leu Leu Cys Thr Leu Ser Ser Glu Ser His Gln

5658

930	935	940
Phe Ala Ser Ile His Pro	Ala Ser Thr Lys Ile	Ser Glu Asp Ala Met
945	950	955
Ser Thr Ala Ser Ser Thr Tyr		960
965	967	

<210> 3892
 <211> 679
 <212> PRT
 <213> Homo sapiens

<400> 3892

Val	Pro	Leu	Pro	Ala	Pro	Ser	Gly	Leu	Ser	Gly	Gly	Gly	Ser	Arg	Gly
1				5					10					15	
Ala	Gly	Cys	Lys	Lys	Ala	Pro	Pro	Gly	Arg	Ala	Pro	Ala	Pro	Gly	Leu
			20					25					30		
Ala	Pro	Leu	Arg	Pro	Ser	Glu	Pro	Thr	Met	Ala	Val	Pro	Pro	Gly	His
		35					40					45			
Gly	Pro	Phe	Ser	Gly	Phe	Pro	Gly	Pro	Gln	Glu	His	Thr	Gln	Val	Leu
	50					55					60				
Pro	Asp	Val	Arg	Leu	Leu	Pro	Arg	Arg	Leu	Pro	Leu	Ala	Phe	Arg	Asp
65					70					75					80
Ala	Thr	Ser	Ala	Pro	Leu	Arg	Lys	Leu	Ser	Val	Asp	Leu	Ile	Lys	Thr
				85					90					95	
Tyr	Lys	His	Ile	Asn	Glu	Val	Tyr	Tyr	Ala	Lys	Lys	Lys	Arg	Arg	Ala
			100					105					110		
Gln	Gln	Ala	Pro	Pro	Gln	Asp	Ser	Ser	Asn	Lys	Lys	Glu	Lys	Lys	Val
		115					120					125			
Leu	Asn	His	Gly	Tyr	Asp	Asp	Asp	Asn	His	Asp	Tyr	Ile	Val	Arg	Ser
	130					135					140				
Gly	Glu	Arg	Trp	Leu	Glu	Arg	Tyr	Glu	Ile	Asp	Ser	Leu	Ile	Gly	Lys
145					150					155					160
Gly	Ser	Phe	Gly	Gln	Val	Val	Lys	Ala	Tyr	Asp	His	Gln	Thr	Gln	Glu
				165					170					175	
Leu	Val	Ala	Ile	Lys	Ile	Ile	Lys	Asn	Lys	Lys	Ala	Phe	Leu	Asn	Gln
		180						185					190		
Ala	Gln	Ile	Glu	Leu	Arg	Leu	Leu	Glu	Leu	Met	Asn	Gln	His	Asp	Thr
		195					200					205			
Glu	Met	Lys	Tyr	Tyr	Ile	Val	His	Leu	Lys	Arg	His	Phe	Met	Phe	Arg
	210					215						220			
Asn	His	Leu	Cys	Leu	Val	Phe	Glu	Leu	Leu	Ser	Tyr	Asn	Leu	Tyr	Asp
225					230					235					240
Leu	Leu	Arg	Asn	Thr	His	Phe	Arg	Gly	Val	Ser	Leu	Asn	Leu	Thr	Arg
				245					250					255	
Lys	Leu	Ala	Gln	Gln	Leu	Cys	Thr	Ala	Leu	Leu	Phe	Leu	Ala	Thr	Pro
			260					265					270		
Glu	Leu	Ser	Ile	Ile	His	Cys	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Leu	Leu
		275					280					285			
Cys	Asn	Pro	Lys	Arg	Ser	Ala	Ile	Lys	Ile	Val	Asp	Phe	Gly	Ser	Ser
	290					295					300				
Cys	Gln	Leu	Gly	Gln	Arg	Ile	Tyr	Gln	Tyr	Ile	Gln	Ser	Arg	Phe	Tyr
305					310					315					320
Arg	Ser	Pro	Glu	Val	Leu	Leu	Gly	Thr	Pro	Tyr	Asp	Leu	Ala	Ile	Asp
				325					330					335	
Met	Trp	Ser	Leu	Gly	Cys	Ile	Leu	Val	Glu	Met	His	Thr	Gly	Glu	Pro
			340					345					350		
Leu	Phe	Ser	Gly	Ser	Asn	Glu	Val	Cys	Pro	Gln	Glu	Gly	Val	Asp	Gln
		355					360					365			
Met	Asn	Arg	Ile	Val	Glu	Val	Leu	Gly	Ile	Pro	Pro	Ala	Ala	Met	Leu
	370						375					380			
Asp	Gln	Ala	Pro	Lys	Ala	Arg	Lys	Tyr	Phe	Glu	Arg	Leu	Pro	Gly	Gly

385 390 395 400
 Gly Trp Thr Leu Arg Arg Thr Lys Glu Leu Arg Lys Asp Tyr Gln Gly
 405 410 415
 Pro Gly Thr Arg Arg Leu Gln Glu Val Leu Gly Val Gln Thr Gly Gly
 420 425 430
 Pro Gly Gly Arg Arg Ala Gly Glu Pro Gly His Ser Pro Ala Asp Tyr
 435 440 445
 Leu Arg Phe Gln Asp Leu Val Leu Arg Met Leu Glu Tyr Glu Pro Ala
 450 455 460
 Ala Arg Ile Ser Pro Leu Gly Ala Leu Gln His Gly Phe Phe Arg Arg
 465 470 475 480
 Thr Ala Asp Glu Ala Thr Asn Thr Gly Pro Ala Gly Ser Ser Ala Ser
 485 490 495
 Thr Ser Pro Ala Pro Leu Asp Thr Cys Pro Ser Ser Ser Thr Ala Ser
 500 505 510
 Ser Ile Ser Ser Ser Gly Gly Ser Ser Gly Ser Ser Ser Asp Asn Arg
 515 520 525
 Thr Tyr Arg Tyr Ser Asn Arg Tyr Cys Gly Gly Pro Gly Pro Pro Ile
 530 535 540
 Thr Asp Cys Glu Met Asn Ser Pro Gln Val Pro Pro Ser Gln Pro Leu
 545 550 555 560
 Arg Pro Trp Ala Gly Gly Asp Val Pro His Lys Thr His Gln Ala Pro
 565 570 575
 Ala Ser Ala Ser Ser Leu Pro Gly Thr Gly Ala Gln Leu Pro Pro Gln
 580 585 590
 Pro Arg Tyr Leu Gly Arg Pro Pro Ser Pro Thr Ser Pro Pro Pro Pro
 595 600 605
 Glu Leu Met Asp Val Ser Leu Val Gly Gly Pro Ala Asp Cys Ser Pro
 610 615 620
 Pro His Pro Ala Pro Ala Pro Gln His Pro Ala Ala Ser Ala Leu Arg
 625 630 635 640
 Thr Arg Met Thr Gly Gly Arg Pro Pro Leu Pro Pro Pro Asp Asp Pro
 645 650 655
 Ala Thr Leu Gly Pro His Leu Gly Leu Arg Gly Val Pro Gln Ser Thr
 660 665 670
 Ala Ala Ser Ser
 675 676

<210> 3893
 <211> 63
 <212> PRT
 <213> Homo sapiens

<400> 3893
 Pro Glu Glu Tyr Tyr Pro Phe Ser Pro Thr Leu Gln Gln Leu Phe Phe
 1 5 10 15
 Phe Leu Leu Asp Ser Asp Met Gly Ser Arg Pro Glu Ser Met Gly Cys
 20 25 30
 Arg Lys Asn Thr Val Pro Arg Pro Ala Ser Pro Thr Glu Ala Gly Thr
 35 40 45
 Asp Pro Gln Thr Phe Leu His Thr Trp Val Ser Glu Cys Arg Asp
 50 55 60 63

<210> 3894
 <211> 329
 <212> PRT
 <213> Homo sapiens

 <221> misc_feature

<222> (1)...(328)

<223> Xaa = any amino acid or nothing

<400> 3894

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Ser Leu. Pro Leu Ala Pro Ala Pro Ala Val Ala Gly Pro Val Ala Leu
 1          5          10          15
Cys Pro Ala Gly Leu Cys Pro Ala Gln Pro Gly Met Pro Ala Gly Pro
 20          25          30
Ala Ala Ala Ser Gly Ser His Pro Glu Val Gly Ser Val Leu Gln Arg
 35          40          45
Ser Ser Gln Pro His Trp Pro Asn Pro Trp Pro Gly Ala Gly His Leu
 50          55          60
Pro Pro Pro Ala Gly Pro Phe Pro Tyr Asn Pro Pro Ala Gly Pro Gly
 65          70          75          80
Ala Ala Ala Gly Leu Ala Xaa Ser Pro Pro Arg Ser Ser Pro Thr Pro
 85          90          95
Cys Ser Val Gly Pro Gln Ser Cys Pro Ala Asn Ala Ser Ala Pro Pro
 100         105         110
Ala Gln Pro Cys Leu Ala Gly Ala Pro Pro Ala Ala Ser Leu Pro Pro
 115         120         125
Pro Gly Pro Gly Ser Val Ser Ala Ala Pro Ala Pro Gly Gly Pro Ala
 130         135         140
Pro Ala Glu Pro Pro Leu Gly Val Pro Pro Val Pro Ala Trp Leu Leu
 145         150         155         160
Pro Asp Ser Pro Pro Leu Pro Gly Thr His Ser Gly Pro Pro Pro Ala
 165         170         175
Ala Val Ser Leu Pro Pro Ala Ala Ala Ala Cys Pro Val Val Val Pro
 180         185         190
Pro Pro Leu Pro His His Pro Pro Asp Leu Glu Ser Pro Ser Ala Ala
 195         200         205
Ala Pro Asn Pro Gly Cys Ala Gly Gly Ile Arg His Phe Pro Pro Gly
 210         215         220
Ser Pro Glu Ala Ser Ser Pro Leu Arg Pro Ala Ala Ala Pro Ala Leu
 225         230         235         240
Leu Pro Leu Pro Arg Pro Pro Ser Xaa Pro Val Pro Trp Lys Pro Leu
 245         250         255
His Ser Pro Val Ala Val Ala Gly Gly Ser Phe Val Ala Gly Gly Ser
 260         265         270
Val Leu Pro Ala Pro Asp Leu Asp Gln Pro Arg Pro Ser Gly Pro Pro
 275         280         285
Ala Ala Ser Pro Thr Pro Gly Pro Gly Val Ala Gln Pro Pro Pro Gly
 290         295         300
Ser Ala Val Leu Pro Thr Val Pro Xaa Ala Pro Pro Val Ser Gly Ala
 305         310         315         320
Ala Pro Gly Arg Lys Arg Glu Trp
 325         328

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<210> 3895

<211> 450

<212> PRT

<213> Homo sapiens

<221> misc_feature

<222> (1)...(448)

<223> Xaa = any amino acid or nothing

<400> 3895

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Phe Gly Ala Val Ser Tyr Arg Pro Gly Asn Gly Ser Cys Trp Val Lys
 1          5          10          15
Val Thr Ala Ser Ser Asp Leu Ser Asp Leu Ile Ser Cys Leu Cys Pro

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			20					25					30		
Pro	Arg	Ser	Leu	Cys	Ser	Ser	Gln	Ala	Cys	Val	Leu	Pro	Val	Pro	Gly
		35					40					45			
Pro	Ser	Leu	Leu	Leu	Pro	Gln	Gly	Leu	His	Val	Gly	Cys	Ala	Ser	Ala
	50					55					60				
Gly	Thr	Arg	Trp	Pro	Leu	Ser	Cys	Ser	Ile	Asp	Phe	Gln	Arg	Leu	Leu
65					70					75					80
Ala	His	Glu	Glu	Glu	Thr	Gln	Lys	Arg	Arg	Ala	Lys	Glu	Ser	Gly	Met
				85					90					95	
Ala	Phe	Thr	Gln	Leu	Thr	Phe	Arg	Asp	Val	Ala	Ile	Glu	Phe	Ser	Gln
			100					105					110		
Asp	Glu	Trp	Lys	Cys	Leu	Asn	Ser	Thr	Gln	Arg	Thr	Leu	Tyr	Arg	Asp
		115					120					125			
Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Ser	Leu	Asp	Leu	Ser	Arg
	130					135					140				
Asn	Cys	Val	Ile	Lys	Glu	Leu	Ala	Pro	Gln	Gln	Glu	Gly	Asn	Pro	Ala
145					150					155					160
Arg	Ser	Ile	Pro	His	Ser	Asp	Ile	Gly	Thr	Thr	Xaa	Lys	Thr	Xaa	His
				165					170					175	
Xaa	Arg	Val	Leu	Leu	Gln	Gly	Asn	Gln	Glu	Lys	Asn	Thr	Arg	Leu	Xaa
			180					185					190		
Leu	Ser	Val	Glu	Arg	Xaa	Xaa	Lys	Lys	Leu	Gln	Gln	Ser	Asp	Tyr	Gly
		195					200					205			
Pro	Lys	Arg	Lys	Ser	Tyr	Leu	Xaa	Glu	Arg	Pro	Thr	Arg	Xaa	Lys	Arg
	210					215					220				
Tyr	Arg	Lys	Gln	Val	Tyr	Xaa	Thr	Ser	Ala	Xaa	Leu	Ser	Phe	Leu	Pro
225					230					235					240
His	Pro	His	Glu	Leu	Gln	Gln	Phe	Gln	Ala	Glu	Gly	Lys	Ile	Tyr	Glu
				245					250					255	
Cys	Asn	His	Val	Glu	Lys	Ser	Val	Asn	His	Gly	Ser	Ser	Val	Ser	Pro
			260					265					270		
Pro	Gln	Ile	Ile	Ser	Ser	Thr	Ile	Lys	Thr	His	Val	Ser	Asn	Lys	Tyr
		275					280					285			
Gly	Thr	Asp	Phe	Ile	Cys	Ser	Ser	Leu	Leu	Thr	Gln	Glu	Gln	Lys	Ser
	290					295					300				
Cys	Ile	Arg	Glu	Lys	Pro	Tyr	Arg	Tyr	Ile	Glu	Cys	Asp	Lys	Ala	Leu
305					310					315					320
Asn	His	Gly	Ser	His	Met	Thr	Val	Arg	Gln	Val	Ser	His	Ser	Gly	Glu
				325					330					335	
Lys	Gly	Tyr	Lys	Cys	Asp	Leu	Cys	Gly	Lys	Val	Phe	Ser	Gln	Lys	Ser
			340					345					350		
Asn	Leu	Ala	Arg	His	Trp	Arg	Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys
		355					360					365			
Cys	Asn	Glu	Cys	Asp	Arg	Ser	Phe	Ser	Arg	Asn	Ser	Cys	Leu	Ala	Leu
	370					375					380				
His	Arg	Arg	Val	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Tyr	Glu	Cys
385					390					395					400
Asp	Lys	Val	Phe	Ser	Arg	Asn	Ser	Cys	Leu	Ala	Leu	His	Gln	Lys	Thr
				405					410					415	
His	Ile	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Lys	Glu	Cys	Gly	Gln	Ala	Phe
			420					425					430		
Ser	Val	Arg	Ser	Thr	Leu	Thr	Asn	His	Gln	Val	Ile	His	Ser	Asp	Lys
		435					440					445			448

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<210> 3896
<211> 99
<212> PRT
<213> Homo sapiens
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<400> 3896  
 Met Val Gln Ser Cys Ser Ala Tyr Gly Cys Lys Asn Arg Tyr Asp Lys  
 1 5 10 15  
 Asp Lys Pro Val Ser Phe His Lys Phe Pro Leu Thr Arg Pro Ser Leu  
 20 25 30  
 Cys Lys Glu Trp Glu Ala Ala Val Arg Arg Lys Asn Phe Lys Pro Thr  
 35 40 45  
 Lys Tyr Ser Ser Ile Cys Ser Glu His Phe Thr Pro Asp Cys Phe Lys  
 50 55 60  
 Arg Glu Cys Asn Asn Lys Leu Leu Lys Glu Asn Ala Val Pro Thr Ile  
 65 70 75 80  
 Phe Leu Cys Thr Glu Pro His Asp Lys Lys Glu Asp Leu Leu Glu Pro  
 85 90 95  
 Gln Glu Gln  
 99

<210> 3897  
 <211> 127  
 <212> PRT  
 <213> Homo sapiens

<400> 3897  
 Ser His Gly Leu Ser Arg Ala Pro His Leu Ser Ala Ala Pro Ala Pro  
 1 5 10 15  
 Ala Leu Ala Ser Arg Pro Cys Phe Ser Ser Ala Pro Cys Ser Gln Gly  
 20 25 30  
 Gly Gly Gly Gly Gly Pro Ala Thr Met Ile His Phe Ile Leu Leu Phe  
 35 40 45  
 Ser Arg Gln Gly Lys Leu Arg Leu Gln Lys Trp Tyr Ile Thr Leu Pro  
 50 55 60  
 Asp Lys Glu Arg Lys Lys Ile Thr Arg Glu Ile Val Gln Ile Ile Leu  
 65 70 75 80  
 Ser Arg Gly His Arg Thr Ser Ser Phe Val Asp Trp Lys Glu Leu Lys  
 85 90 95  
 Leu Val Tyr Lys Arg Tyr Ala Ser Leu Tyr Phe Cys Cys Ala Ile Glu  
 100 105 110  
 Asn Gln Asp Asn Glu Leu Leu Thr Leu Glu Asn Val His Arg  
 115 120 125 126

<210> 3898  
 <211> 138  
 <212> PRT  
 <213> Homo sapiens

<400> 3898  
 Ser Glu Gln Glu Pro Leu Leu Gly Asp Thr Pro Gly Ser Arg Glu Trp  
 1 5 10 15  
 Asp Ile Leu Glu Thr Glu Glu His Tyr Lys Ser Arg Trp Arg Ser Ile  
 20 25 30  
 Arg Ile Leu Tyr Leu Thr Met Phe Leu Ser Ser Val Gly Phe Ser Val  
 35 40 45  
 Val Met Met Ser Ile Trp Pro Tyr Leu Gln Lys Ile Asp Pro Thr Ala  
 50 55 60  
 Asp Thr Ser Phe Leu Gly Trp Val Ile Ala Ser Tyr Ser Leu Gly Gln  
 65 70 75 80  
 Met Val Ala Ser Pro Ile Phe Gly Leu Trp Ser Asn Tyr Arg Pro Arg  
 85 90 95  
 Lys Glu Pro Leu Ile Val Ser Ile Leu Ile Ser Val Ala Ala Asn Cys

```
<210> 3899
<211> 234
<212> PRT
<213> Homo sapiens
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```
<210> 3900
<211> 121
<212> PRT
<213> Homo sapiens
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5664

```

65 70 75 80
Ala Pro Ser Arg Leu Ser Ser Ser Ile Ala Ala His Ser Ser Ser Ala
 85 90 95
Pro Glu Thr Ser Arg Pro Ala Ala Ala Arg Glu Arg Ser Pro Pro Leu
 100 105 110
His Asp Arg Glu Ser His Glu
 115 119

```

```

<210> 3901
<211> 51
<212> PRT
<213> Homo sapiens

```

```

<400> 3901
Gly Glu Trp Ala Val Pro Pro Ala Pro Gly Gly Gln Gly Val Ser Ile
 1 5 10 15
Pro His Gly Pro Glu Pro Gly Gln Gly Ser Gly Val His Ile Ala Pro
 20 25 30
Arg Gln Gly Glu Gly Ser Asp Arg Thr Glu Pro Leu Ile Cys Pro Lys
 35 40 45
Ala Ala Pro
 50 51

```

```

<210> 3902
<211> 68
<212> PRT
<213> Homo sapiens

```

```

<400> 3902
Asn Pro Ala Ala Arg Ser Ala Ala Ala Arg Glu Gly Ser Pro Ala Leu
 1 5 10 15
Pro Pro Pro Pro Val Ser Ser Ser Ser Gly Leu Gly Leu Leu Leu Pro
 20 25 30
Leu Ser Pro Pro Gly Ser His Ala Ala Asn Pro Ala Leu Ser Pro Arg
 35 40 45
Ala Pro His Ser His Tyr Arg Pro Arg Pro Arg Cys Gly Pro Arg Arg
 50 55 60
Arg Pro Arg
 65 67

```

```

<210> 3903
<211> 111
<212> PRT
<213> Homo sapiens

```

```

<221> misc_feature
<222> (1)...(111)
<223> Xaa = any amino acid or nothing

```

```

<400> 3903
Asn Asn Met Arg Asn Pro His Leu Ser Ser Asn His Tyr Leu Asn Leu
 1 5 10 15
Ala Arg Thr Glu Thr Val Phe Ala Arg Met Glu Ser Val Lys Gln Arg
 20 25 30
Ile Leu Ala Pro Gly Lys Glu Gly Leu Lys Asn Phe Ala Gly Lys Ser

```

|                                                                 |                                     |         |
|-----------------------------------------------------------------|-------------------------------------|---------|
| 35                                                              | 40                                  | 45      |
| Leu Gly Gln Ile Tyr Arg Val                                     | Leu Glu Lys Lys Gln Asp Thr Gly Glu |         |
| 50                                                              | 55                                  | 60      |
| Thr Ile Glu Leu Thr Glu Asp Gly Lys Pro Leu Xaa Val Pro Glu Arg |                                     |         |
| 65                                                              | 70                                  | 75      |
| Lys Ala Pro Leu Cys Asp Cys Thr Cys Phe Gly Leu Pro Arg Arg Tyr |                                     | 80      |
| 85                                                              | 90                                  | 95      |
| Ile Ile Ala Ile Met Ser Gly Leu Gly Phe Cys Ile Ser Phe Gly     |                                     |         |
| 100                                                             | 105                                 | 110 111 |

&lt;210&gt; 3904

&lt;211&gt; 104

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(104)

&lt;223&gt; Xaa = any amino acid or nothing

&lt;400&gt; 3904

|                                                                 |          |
|-----------------------------------------------------------------|----------|
| Ala Met Ser Glu Cys Pro Leu Ile Leu Tyr Ile His Lys His Ile Asp |          |
| 1                                                               | 5 10 15  |
| Thr Tyr Ser Gln Ser Tyr Leu Phe Asn Asp Leu Phe Tyr Pro Val Tyr |          |
| 20                                                              | 25 30    |
| Ser Gly Gly Arg Met Val Thr Tyr Glu His Leu Arg Glu Val Val Phe |          |
| 35                                                              | 40 45    |
| Gly Lys Ser Glu Asp Glu His Tyr Pro Leu Trp Xaa Val Leu Phe Gly |          |
| 50                                                              | 55 60    |
| Lys Xaa Tyr Ala Val Ala Pro Asn Ala Leu Met Phe Ile Arg Phe Met |          |
| 65                                                              | 70 75 80 |
| Xaa Asn Cys Thr Phe Val Pro Lys Leu Pro Xaa Val Met Asp Leu Lys |          |
| 85                                                              | 90 95    |
| Xaa Xaa Leu Gln Tyr Lys Ser Arg                                 |          |
| 100                                                             | 104      |

&lt;210&gt; 3905

&lt;211&gt; 288

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3905

|                                                                 |          |
|-----------------------------------------------------------------|----------|
| Gln Pro Pro Pro Pro Pro Pro Pro Pro Pro Ser Pro Pro Pro Pro Pro |          |
| 1                                                               | 5 10 15  |
| Phe Pro Pro Ala Arg Ala Leu Ser His Leu Arg Leu His Pro Asp Ala |          |
| 20                                                              | 25 30    |
| Cys Leu Phe Pro Ser Pro Phe Pro Leu Pro Cys Ser Thr Met Pro Gly |          |
| 35                                                              | 40 45    |
| Met Met Glu Lys Gly Pro Glu Leu Leu Gly Lys Asn Arg Ser Ala Asn |          |
| 50                                                              | 55 60    |
| Gly Ser Ala Lys Ser Pro Ala Gly Gly Gly Gly Ser Gly Ala Ser Ser |          |
| 65                                                              | 70 75 80 |
| Thr Asn Gly Gly Leu His Tyr Ser Glu Pro Glu Ser Gly Cys Ser Ser |          |
| 85                                                              | 90 95    |
| Asp Asp Glu His Asp Val Gly Met Arg Val Gly Ala Glu Tyr Gln Ala |          |
| 100                                                             | 105 110  |
| Arg Ile Pro Glu Phe Asp Pro Gly Ala Thr Lys Tyr Thr Asp Lys Asp |          |
| 115                                                             | 120 125  |
| Asn Gly Gly Met Leu Val Trp Ser Pro Tyr His Ser Ile Pro Asp Ala |          |

|                                                                 |                                         |     |
|-----------------------------------------------------------------|-----------------------------------------|-----|
| 130                                                             | 135                                     | 140 |
| Lys Leu Asp Glu Tyr Ile                                         | Ala Ile Ala Lys Glu Lys His Gly Tyr Asn |     |
| 145                                                             | 150                                     | 155 |
| Val Glu Gln Ala Leu Gly Met Leu Phe Trp His Lys His Asn Ile Glu |                                         | 160 |
|                                                                 | 165                                     | 170 |
| Lys Ser Leu Ala Asp Leu Pro Asn Phe Thr Pro Phe Pro Asp Glu Trp |                                         | 175 |
|                                                                 | 180                                     | 185 |
| Thr Val Glu Asp Lys Val Leu Phe Glu Gln Ala Phe Ser Phe His Gly |                                         | 190 |
|                                                                 | 195                                     | 200 |
| Lys Ser Phe His Arg Ile Gln Gln Met Leu Pro Asp Lys Thr Ile Ala |                                         | 205 |
|                                                                 | 210                                     | 215 |
| Ser Leu Val Lys Tyr Tyr Tyr Ser Trp Lys Lys Thr Arg Ser Arg Thr |                                         | 220 |
| 225                                                             | 230                                     | 235 |
| Ser Leu Met Asp Arg Gln Ala Arg Lys Leu Ala Asn Arg His Asn Gln |                                         | 240 |
|                                                                 | 245                                     | 250 |
| Gly Asp Ser Asp Asp Asp Val Glu Glu Thr His Pro Met Asp Gly Asn |                                         | 255 |
|                                                                 | 260                                     | 265 |
| Asp Ser Asp Tyr Asp Pro Lys Lys Glu Ala Lys Lys Glu Gly Met Ser |                                         | 270 |
|                                                                 | 275                                     | 280 |
|                                                                 |                                         | 285 |
|                                                                 |                                         | 288 |

<210> 3906  
 <211> 170  
 <212> PRT  
 <213> Homo sapiens

<400> 3906

|                                                                 |     |
|-----------------------------------------------------------------|-----|
| Lys Val Cys Asn Cys Cys Ser Gln Glu Leu Glu Thr Ser Phe Thr Tyr |     |
| 1                                                               | 5   |
| Val Asp Lys Asn Ile Asn Leu Glu Gln Arg Asn Arg Ser Ser Pro Ser | 10  |
|                                                                 | 15  |
|                                                                 | 20  |
| Ala Lys Gly His Asn His Pro Gly Glu Leu Gly Trp Glu Asn Pro Asn | 25  |
|                                                                 | 30  |
|                                                                 | 35  |
| Glu Trp Ser Gln Glu Ala Ala Ile Ser Leu Ile Ser Glu Glu Glu Asp | 40  |
|                                                                 | 45  |
|                                                                 | 50  |
| Asp Thr Ser Ser Glu Ala Thr Ser Ser Gly Lys Ser Ile Asp Tyr Gly | 55  |
|                                                                 | 60  |
|                                                                 | 65  |
| Phe Ile Ser Ala Ile Leu Phe Leu Val Thr Gly Ile Leu Leu Val Ile | 70  |
|                                                                 | 75  |
|                                                                 | 80  |
|                                                                 | 85  |
| Ile Ser Tyr Ile Val Pro Arg Glu Val Thr Val Asp Pro Asn Thr Val | 90  |
|                                                                 | 95  |
|                                                                 | 100 |
| Ala Ala Arg Glu Met Glu Arg Leu Glu Lys Glu Ser Ala Arg Leu Gly | 105 |
|                                                                 | 110 |
|                                                                 | 115 |
| Ala His Leu Asp Arg Cys Val Ile Ala Gly Leu Cys Leu Leu Thr Leu | 120 |
|                                                                 | 125 |
|                                                                 | 130 |
| Gly Gly Val Ile Leu Ser Cys Leu Leu Met Met Ser Met Trp Lys Gly | 135 |
|                                                                 | 140 |
|                                                                 | 145 |
| Glu Leu Tyr Arg Arg Asn Arg Phe Ala Ser                         | 150 |
|                                                                 | 155 |
|                                                                 | 160 |
|                                                                 | 165 |
|                                                                 | 170 |

<210> 3907  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 3907

|                                                                 |
|-----------------------------------------------------------------|
| Ile Leu Ile Met Ser Asn Cys Leu Gln Asn Phe Leu Lys Ile Thr Ser |
|-----------------------------------------------------------------|

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Thr | Arg | Leu | Leu | Cys | Ser | Arg | Leu | Cys | Gln | Gln | Leu | Arg | Ser | Lys | Arg |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Lys | Phe | Phe | Gly | Thr | Val | Pro | Ile | Ser | Arg | Leu | His | Arg | Arg | Val | Val |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Ile | Thr | Gly | Ile | Gly | Leu | Val | Thr | Pro | Leu | Gly | Val | Gly | Thr | His | Leu |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Val | Trp | Asp | Arg | Leu | Ile | Gly | Gly | Glu | Ser | Gly | Ile | Val | Ser | Leu | Val |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Gly | Glu | Glu | Tyr | Lys | Ser | Ile | Pro | Cys | Ser | Val | Ala | Ala | Tyr | Val | Pro |  |
|     |     |     |     | 85  |     |     |     | 90  |     |     |     |     |     | 95  |     |  |
| Arg | Gly | Ser | Asp | Glu | Gly | Gln | Phe | Asn | Glu | Gln | Asn | Phe | Val | Ser | Lys |  |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |
| Ser | Asp |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|     | 114 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |

<210> 3908  
 <211> 223  
 <212> PRT  
 <213> Homo sapiens

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
| Leu | Gly | Thr | Leu | Leu | Gly | Trp | Arg | Ala | Pro | Leu | Phe | Ser | Arg | Cys | Leu |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |
| Ala | Phe | His | Ser | Pro | Phe | Ile | Leu | Leu | Asn | Thr | Pro | Lys | Leu | Val | Lys |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Thr | Ala | Glu | Leu | Pro | Pro | Asp | Arg | Asn | Tyr | Val | Leu | Gly | Ala | His | Pro |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| His | Gly | Ile | Met | Cys | Thr | Gly | Phe | Leu | Cys | Asn | Phe | Ser | Thr | Glu | Ser |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Asn | Gly | Phe | Ser | Gln | Leu | Phe | Pro | Gly | Leu | Arg | Pro | Trp | Leu | Ala | Val |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Leu | Ala | Gly | Leu | Phe | Tyr | Leu | Pro | Val | Tyr | Arg | Asp | Tyr | Ile | Met | Ser |  |
|     |     |     |     | 85  |     |     |     | 90  |     |     |     |     |     | 95  |     |  |
| Phe | Gly | Leu | Cys | Pro | Val | Ser | Arg | Gln | Ser | Leu | Asp | Phe | Ile | Leu | Ser |  |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |
| Gln | Pro | Gln | Leu | Gly | Gln | Ala | Val | Val | Ile | Met | Val | Gly | Gly | Ala | His |  |
|     |     | 115 |     |     |     | 120 |     |     |     |     |     | 125 |     |     |     |  |
| Glu | Ala | Leu | Tyr | Ser | Val | Pro | Gly | Glu | His | Cys | Leu | Thr | Leu | Gln | Lys |  |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |
| Arg | Lys | Gly | Phe | Val | Arg | Leu | Ala | Leu | Arg | His | Gly | Ala | Ser | Leu | Val |  |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |  |
| Pro | Val | Tyr | Ser | Phe | Gly | Glu | Asn | Asp | Ile | Phe | Arg | Leu | Lys | Ala | Phe |  |
|     |     |     |     | 165 |     |     |     | 170 |     |     |     |     |     | 175 |     |  |
| Ala | Thr | Gly | Ser | Trp | Gln | His | Trp | Cys | Gln | Leu | Thr | Phe | Lys | Lys | Leu |  |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |  |
| Met | Gly | Phe | Ser | Pro | Cys | Ile | Phe | Trp | Gly | Arg | Gly | Leu | Phe | Ser | Ala |  |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |  |
| Thr | Ser | Trp | Gly | Leu | Leu | Pro | Phe | Ala | Val | Pro | Ile | Thr | Thr | Val |     |  |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     | 223 |     |  |

<210> 3909  
 <211> 264  
 <212> PRT  
 <213> Homo sapiens

<400> 3909  
 Phe Arg Ala Ala Gly Arg Pro Ala Ala Ala Met Gly Asp Ile Pro Val



|                                                                 |     |     |     |
|-----------------------------------------------------------------|-----|-----|-----|
| 1                                                               | 5   | 10  | 15  |
| Val Gly Leu Ser Ser Trp Lys Ala Ser Pro Gly Lys Val Thr Glu Ala |     |     |     |
| 20                                                              | 25  | 30  |     |
| Val Lys Glu Ala Ile Asp Ala Gly Tyr Arg His Phe Asp Cys Ala Tyr |     |     |     |
| 35                                                              | 40  | 45  |     |
| Phe Tyr His Asn Glu Arg Glu Val Gly Ala Gly Ile Arg Cys Lys Ile |     |     |     |
| 50                                                              | 55  | 60  |     |
| Lys Glu Gly Ala Val Arg Arg Glu Asp Leu Leu Ile Ala Thr Lys Leu |     |     |     |
| 65                                                              | 70  | 75  | 80  |
| Trp Cys Thr Cys His Lys Lys Ser Leu Val Glu Thr Ala Cys Arg Lys |     |     |     |
| 85                                                              | 90  | 95  |     |
| Ser Leu Lys Ala Leu Lys Leu Asn Tyr Leu Asp Leu Tyr Leu Ile His |     |     |     |
| 100                                                             | 105 | 110 |     |
| Trp Pro Met Gly Phe Lys Pro Pro His Pro Glu Trp Ile Met Ser Cys |     |     |     |
| 115                                                             | 120 | 125 |     |
| Ser Glu Leu Ser Phe Cys Leu Ser His Pro Arg Val Gln Asp Leu Pro |     |     |     |
| 130                                                             | 135 | 140 |     |
| Leu Asp Glu Ser Asn Met Val Ile Pro Ser Asp Thr Asp Phe Leu Asp |     |     |     |
| 145                                                             | 150 | 155 | 160 |
| Thr Trp Glu Ala Met Glu Asp Leu Val Ile Thr Gly Leu Val Lys Asn |     |     |     |
| 165                                                             | 170 | 175 |     |
| Ile Gly Val Ser Asn Phe Asn His Glu Gln Leu Glu Arg Leu Leu Asn |     |     |     |
| 180                                                             | 185 | 190 |     |
| Lys Pro Gly Leu Arg Phe Lys Pro Leu Thr Asn Gln Ile Glu Cys His |     |     |     |
| 195                                                             | 200 | 205 |     |
| Pro Tyr Leu Thr Gln Lys Asn Leu Ile Ser Phe Cys Gln Ser Arg Asp |     |     |     |
| 210                                                             | 215 | 220 |     |
| Val Ser Val Thr Ala Tyr Arg Pro Leu Gly Gly Ser Cys Glu Gly Val |     |     |     |
| 225                                                             | 230 | 235 | 240 |
| Asp Leu Ile Asp Asn Pro Val Ile Lys Arg Ile Ala Lys Glu His Gly |     |     |     |
| 245                                                             | 250 | 255 |     |
| Lys Ser Pro Ala Gln Ile Leu Ile                                 |     |     |     |
| 260                                                             | 264 |     |     |

&lt;210&gt; 3910

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3910

|                                                                 |     |     |     |
|-----------------------------------------------------------------|-----|-----|-----|
| Phe Phe Thr Met His Arg Lys Lys Val Asp Asn Arg Ile Arg Ile Leu |     |     |     |
| 1                                                               | 5   | 10  | 15  |
| Ile Glu Asn Gly Val Ala Glu Arg Gln Arg Ser Leu Phe Val Val Val |     |     |     |
| 20                                                              | 25  | 30  |     |
| Gly Asp Arg Gly Lys Asp Gln Val Val Ile Leu His His Met Leu Ser |     |     |     |
| 35                                                              | 40  | 45  |     |
| Lys Ala Thr Val Lys Ala Arg Pro Ser Val Leu Trp Cys Tyr Lys Lys |     |     |     |
| 50                                                              | 55  | 60  |     |
| Glu Leu Gly Phe Ser Ser His Arg Lys Lys Arg Met Arg Gln Leu Gln |     |     |     |
| 65                                                              | 70  | 75  | 80  |
| Lys Lys Ile Lys Asn Gly Thr Leu Asn Ile Lys Gln Asp Asp Pro Phe |     |     |     |
| 85                                                              | 90  | 95  |     |
| Glu Leu Phe Ile Ala Ala Thr Asn Ile Arg Tyr Cys Tyr Tyr Asn Glu |     |     |     |
| 100                                                             | 105 | 110 |     |
| Thr His Lys Ile Leu Gly Asn Thr Phe Gly Met Cys Val Leu Gln Asp |     |     |     |
| 115                                                             | 120 | 125 |     |
| Phe Glu Ala Leu Thr Pro Asn Leu Leu Ala Arg Thr Val Glu Thr Val |     |     |     |
| 130                                                             | 135 | 140 |     |
| Glu Gly Gly Gly Leu Val Val Ile Leu Leu Arg Thr Met Asn Ser Leu |     |     |     |
| 145                                                             | 150 | 155 | 160 |
| Lys Gln Leu Tyr Thr Val Thr Met                                 |     |     |     |

165

168

<210> 3911  
 <211> 240  
 <212> PRT  
 <213> Homo sapiens

<400> 3911  
 Ala Gly Arg Gly Ala Arg Ala Ala Gly Glu Gly Gly Gly Pro Phe Lys  
 1 5 10 15  
 Ser Arg Pro Arg Pro Leu Pro Ser Ser Arg Ser Leu Pro Ala Val Gly  
 20 25 30  
 Gly Gly Arg Tyr Gly Ala Asp Lys Met Ala Ala Gly Gly Ala Val Ala  
 35 40 45  
 Ala Ala Pro Glu Cys Arg Leu Leu Pro Tyr Ala Leu His Lys Trp Ser  
 50 55 60  
 Ser Phe Ser Ser Thr Tyr Leu Pro Glu Asn Ile Leu Val Asp Lys Pro  
 65 70 75 80  
 Asn Asp Gln Ser Ser Arg Trp Ser Ser Glu Ser Asn Tyr Pro Pro Gln  
 85 90 95  
 Tyr Leu Ile Leu Lys Leu Glu Arg Pro Ala Ile Val Gln Asn Ile Thr  
 100 105 110  
 Phe Gly Lys Tyr Glu Lys Thr His Val Cys Asn Leu Lys Lys Phe Lys  
 115 120 125  
 Val Phe Gly Gly Met Asn Glu Glu Asn Met Thr Glu Leu Leu Ser Ser  
 130 135 140  
 Gly Leu Lys Asn Asp Tyr Asn Lys Glu Thr Phe Thr Leu Lys His Lys  
 145 150 155 160  
 Ile Asp Glu Gln Met Phe Pro Cys Arg Phe Ile Lys Ile Val Pro Leu  
 165 170 175  
 Leu Ser Trp Gly Pro Ser Phe Asn Phe Ser Ile Trp Tyr Val Glu Leu  
 180 185 190  
 Ser Gly Ile Asp Asp Pro Asp Ile Val Gln Pro Cys Leu Asn Trp Tyr  
 195 200 205  
 Ser Lys Tyr Arg Glu Gln Glu Ala Ile Arg Leu Cys Leu Lys His Phe  
 210 215 220  
 Arg Gln His Asn Tyr Thr Glu Ala Phe Glu Ser Leu Gln Lys Lys Thr  
 225 230 235 240

<210> 3912  
 <211> 153  
 <212> PRT  
 <213> Homo sapiens

<400> 3912  
 Phe Glu Lys Lys Gln Leu Arg Arg Pro Ser Leu Phe Leu Leu Gly Cys  
 1 5 10 15  
 Cys Ser Phe Gly Ile Met Ala Pro Ser Leu Trp Lys Gly Leu Glu Gly  
 20 25 30  
 Ile Gly Leu Phe Ala Leu Ala His Ala Ala Phe Ser Ala Ala Gln His  
 35 40 45  
 Arg Ser Tyr Met Arg Leu Thr Glu Lys Glu Asp Glu Ser Leu Pro Ile  
 50 55 60  
 Asp Ile Val Leu Gln Thr Leu Leu Ala Phe Ala Val Thr Cys Tyr Gly  
 65 70 75 80  
 Ile Val His Ile Ala Gly Glu Phe Lys Asp Met Asp Ala Thr Ser Glu

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |  |
| Leu | Lys | Asn | Lys | Thr | Phe | Asp | Thr | Val | Arg | Asn | His | Pro | Ser | Phe | Tyr |  |  |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |  |
| Val | Phe | Asn | His | Arg | Gly | Ser | Glu | Tyr | Phe | Ser | Gly | Pro | Ser | Asp | Thr |  |  |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |  |
| Ala | Asn | Ser | Ser | Asn | Gln | Asp | Ala | Leu | Ser | Ser | Asn | Thr | Ser | Leu | Lys |  |  |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |  |
| Leu | Arg | Lys | Leu | Glu | Ser | Leu | Arg | Arg |     |     |     |     |     |     |     |  |  |
| 145 |     |     |     |     | 150 |     |     | 153 |     |     |     |     |     |     |     |  |  |

<210> 3913  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<400> 3913

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Ala | Pro | Gly | Arg | Pro | Glu | Ala | Lys | Val | Pro | Glu | Arg | Ser | Arg | Glu | Ser |  |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |  |
| Gly | Ser | Arg | Arg | Val | Arg | Gly | Pro | Leu | Leu | Gln | Leu | Arg | Pro | Gly | Arg |  |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |  |
| Thr | Ser | Arg | Pro | Ala | Ser | Gly | Arg | Gly | Arg | Gly | Gly | Ala | Gly | Gly | Ser |  |  |
|     |     | 35  |     |     |     | 40  |     |     |     |     |     | 45  |     |     |     |  |  |
| Tyr | Gly | Lys | Met | Arg | Lys | Pro | Asp | Ser | Lys | Ile | Val | Leu | Leu | Gly | Asp |  |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |  |
| Met | Asn | Val | Gly | Lys | Thr | Ser | Leu | Leu | Gln | Arg | Tyr | Met | Glu | Arg | Arg |  |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |  |
| Phe | Pro | Asp | Thr | Val | Ser | Thr | Val | Gly | Gly | Ala | Phe | Tyr | Leu | Lys | Gln |  |  |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |  |
| Trp | Arg | Ser | Tyr | Asn | Ile | Ser | Ile | Trp | Asp | Thr | Ala | Gly | Glu | Ala | Gly |  |  |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |  |
| Ala | Ala |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|     | 114 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |

<210> 3914  
 <211> 2515  
 <212> PRT  
 <213> Homo sapiens

<400> 3914

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| Pro | Gly | Ile | Arg | Val | Gly | Ile | Thr | Ser | Gln | Thr | Gly | Leu | Ser | Ser | Asn |  |  |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |  |
| Leu | Gln | Glu | Asn | Cys | Ser | Lys | Leu | Ala | Phe | Ile | Ser | Ser | His | Gly | Thr |  |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |  |
| Glu | Lys | Gln | Leu | Gln | Cys | Met | Pro | Met | Glu | Gly | Arg | Gly | Arg | Ala | Ser |  |  |
|     |     | 35  |     |     |     | 40  |     |     |     |     |     | 45  |     |     |     |  |  |
| Ser | Ser | Ile | Ser | Asp | Leu | Gln | Gly | Lys | Gly | Phe | Glu | Lys | Gly | Thr | Gly |  |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |  |
| Glu | Lys | His | Val | Pro | Gly | Val | Gly | Ser | Ala | Arg | His | Ser | Pro | Gln | Ala |  |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |  |
| Ser | Ala | Gly | Gly | Ser | Pro | Trp | Gln | Arg | Gly | Lys | Ala | Gln | Thr | Arg | Trp |  |  |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |  |
| Leu | Gly | Lys | Pro | Asp | Pro | Gly | Arg | Lys | Arg | Arg | Arg | Gly | Ser | Pro | Gln |  |  |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |  |
| Glu | Glu | Gly | Gly | Leu | Arg | Val | Ser | Ala | Ala | Ala | Arg | Leu | Leu | Cys | Ser |  |  |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |  |
| Gly | Ala | Asn | Arg | Cys | Lys | Val | Leu | Val | Arg | Gln | Asn | Ser | Thr | Pro | Asn |  |  |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |  |
| Thr | Gln | Gln | Pro | Ala | Val | His | Pro | Ser | Thr | Pro | Pro | Ser | Arg | Pro | Leu |  |  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     | 160 |     |
| Pro | Gln | Ala | Gly | Arg | Cys | Leu | Val | Ala | Pro | Leu | Arg | Pro | His | Pro | Asp |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Trp | Val | Ala | Ala | Lys | Thr | Leu | Ala | Lys | Ala | Leu | Arg | Ala | Pro | Gly | Lys |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Pro | Trp | Arg | Leu | Ala | Ala | Pro | Ser | Pro | Leu | Gly | Asp | Leu | Gly | Ala | Pro |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Gly | Leu | Pro | Gly | Pro | Ser | Thr | Ala | Pro | Arg | Thr | Leu | Ser | Val | Glu | Glu |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Pro | Gly | Val | Glu | Cys | Asn | Gln | Leu | Cys | Leu | Tyr | Ala | Asp | Val | Thr | Asp |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     | 240 |     |
| Pro | Val | Leu | Cys | Leu | Gly | Gln | Lys | Asp | Pro | Gly | Val | Glu | Gly | Lys | His |
|     |     |     | 245 |     |     |     |     | 250 |     |     |     |     |     | 255 |     |
| Cys | Glu | Lys | Glu | Lys | Ile | Ser | Ser | Ser | Lys | Glu | Leu | Lys | His | Val | His |
|     |     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |
| Ala | Lys | Ser | Glu | Pro | Ser | Lys | Pro | Ala | Arg | Arg | Leu | Ser | Glu | Ser | Leu |
|     |     | 275 |     |     |     |     | 280 |     |     |     |     | 285 |     |     |     |
| His | Val | Val | Asp | Glu | Asn | Lys | Asn | Glu | Ser | Lys | Ile | Glu | Arg | Glu | His |
|     | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |
| Lys | Arg | Arg | Thr | Ser | Thr | Pro | Val | Ile | Met | Glu | Gly | Val | Gln | Glu | Glu |
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     | 320 |     |
| Thr | Asp | Thr | Arg | Asp | Val | Lys | Arg | Gln | Val | Glu | Arg | Ser | Glu | Ile | Cys |
|     |     |     | 325 |     |     |     |     | 330 |     |     |     |     |     | 335 |     |
| Thr | Glu | Glu | Pro | Gln | Lys | Gln | Lys | Ser | Thr | Leu | Lys | Asn | Glu | Lys | His |
|     |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |
| Leu | Lys | Lys | Asp | Asp | Ser | Glu | Thr | Pro | His | Leu | Lys | Ser | Leu | Leu | Lys |
|     |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |
| Lys | Glu | Val | Lys | Ser | Ser | Lys | Glu | Lys | Pro | Glu | Arg | Glu | Lys | Thr | Pro |
|     | 370 |     |     |     |     | 375 |     |     |     | 380 |     |     |     |     |     |
| Ser | Glu | Asp | Lys | Leu | Ser | Val | Lys | His | Lys | Tyr | Lys | Gly | Asp | Cys | Met |
| 385 |     |     |     |     | 390 |     |     |     |     | 395 |     |     |     | 400 |     |
| His | Lys | Thr | Gly | Asp | Glu | Thr | Glu | Leu | His | Ser | Ser | Glu | Lys | Gly | Leu |
|     |     |     | 405 |     |     |     |     | 410 |     |     |     |     |     | 415 |     |
| Lys | Val | Glu | Glu | Asn | Ile | Gln | Lys | Gln | Ser | Gln | Gln | Thr | Lys | Leu | Ser |
|     |     |     | 420 |     |     |     |     | 425 |     |     |     |     | 430 |     |     |
| Ser | Asp | Asp | Lys | Thr | Glu | Arg | Lys | Ser | Lys | His | Arg | Asn | Glu | Arg | Lys |
|     |     | 435 |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |
| Leu | Ser | Val | Leu | Gly | Lys | Asp | Gly | Lys | Pro | Val | Ser | Glu | Tyr | Ile | Ile |
|     | 450 |     |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |
| Lys | Thr | Asp | Glu | Asn | Val | Arg | Lys | Glu | Asn | Asn | Lys | Lys | Glu | Arg | Arg |
| 465 |     |     |     |     | 470 |     |     |     |     | 475 |     |     |     | 480 |     |
| Leu | Ser | Ala | Glu | Lys | Thr | Lys | Ala | Glu | His | Lys | Ser | Arg | Arg | Ser | Ser |
|     |     |     | 485 |     |     |     |     | 490 |     |     |     |     |     | 495 |     |
| Asp | Ser | Lys | Ile | Gln | Lys | Asp | Ser | Leu | Gly | Ser | Lys | Gln | His | Gly | Ile |
|     |     | 500 |     |     |     |     |     | 505 |     |     |     |     | 510 |     |     |
| Thr | Leu | Gln | Arg | Arg | Ser | Glu | Ser | Tyr | Ser | Glu | Asp | Lys | Cys | Asp | Met |
|     | 515 |     |     |     |     |     | 520 |     |     |     |     | 525 |     |     |     |
| Asp | Ser | Thr | Asn | Met | Asp | Ser | Asn | Leu | Lys | Pro | Glu | Glu | Val | Val | His |
|     | 530 |     |     |     |     | 535 |     |     |     |     | 540 |     |     |     |     |
| Lys | Glu | Lys | Arg | Arg | Thr | Lys | Ser | Leu | Leu | Glu | Glu | Lys | Leu | Val | Leu |
| 545 |     |     |     |     | 550 |     |     |     |     | 555 |     |     |     | 560 |     |
| Lys | Ser | Lys | Ser | Lys | Thr | Gln | Gly | Lys | Gln | Val | Lys | Val | Val | Glu | Thr |
|     |     |     | 565 |     |     |     |     | 570 |     |     |     |     |     | 575 |     |
| Glu | Leu | Gln | Glu | Gly | Ala | Thr | Lys | Gln | Ala | Thr | Thr | Pro | Lys | Pro | Asp |
|     |     |     | 580 |     |     |     |     | 585 |     |     |     |     | 590 |     |     |
| Lys | Glu | Lys | Asn | Thr | Glu | Glu | Asn | Asp | Ser | Glu | Lys | Gln | Arg | Lys | Ser |
|     | 595 |     |     |     |     |     | 600 |     |     |     |     | 605 |     |     |     |
| Lys | Val | Glu | Asp | Lys | Pro | Phe | Glu | Glu | Thr | Gly | Val | Glu | Pro | Val | Leu |
|     | 610 |     |     |     |     | 615 |     |     |     | 620 |     |     |     |     |     |
| Glu | Thr | Ala | Ser | Ser | Ser | Ala | His | Ser | Thr | Gln | Lys | Asp | Ser | Ser | His |
| 625 |     |     |     |     | 630 |     |     |     |     | 635 |     |     |     | 640 |     |
| Arg | Ala | Lys | Leu | Pro | Leu | Ala | Lys | Glu | Lys | Tyr | Lys | Ser | Asp | Lys | Asp |
|     |     |     | 645 |     |     |     |     | 650 |     |     |     |     |     | 655 |     |
| Ser | Thr | Ser | Thr | Arg | Leu | Glu | Arg | Lys | Leu | Ser | Asp | Gly | His | Lys | Ser |

5673

|                                                                 |      |      |
|-----------------------------------------------------------------|------|------|
| 1170                                                            | 1175 | 1180 |
| Ala Gly Pro Ala Thr Thr Thr Ser Ser Glu Thr Arg Gln Ser Glu Val |      |      |
| 1185                                                            | 1190 | 1195 |
| Ala Leu Pro Cys Thr Ser Ile Glu Ala Asp Glu Gly Leu Ile Ile Gly |      | 1200 |
|                                                                 | 1205 | 1210 |
| Thr His Ser Arg Asn Asn Pro Leu His Val Gly Ala Glu Ala Ser Glu |      | 1215 |
|                                                                 | 1220 | 1225 |
| Cys Thr Val Phe Ala Ala Ala Glu Glu Gly Gly Ala Val Val Thr Glu |      | 1230 |
|                                                                 | 1235 | 1240 |
| Gly Phe Ala Glu Ser Glu Thr Phe Leu Thr Ser Thr Lys Glu Gly Glu |      | 1245 |
|                                                                 | 1250 | 1255 |
| Ser Gly Glu Cys Ala Val Ala Glu Ser Glu Asp Arg Ala Ala Asp Leu |      | 1260 |
| 1265                                                            | 1270 | 1275 |
| Leu Ala Val His Ala Val Lys Ile Glu Ala Asn Val Asn Ser Val Val |      | 1280 |
|                                                                 | 1285 | 1290 |
| Thr Glu Glu Lys Asp Asp Ala Val Thr Ser Ala Gly Ser Glu Glu Lys |      | 1295 |
|                                                                 | 1300 | 1305 |
| Cys Asp Gly Ser Leu Ser Arg Asp Ser Glu Ile Val Glu Gly Thr Ile |      | 1310 |
|                                                                 | 1315 | 1320 |
| Thr Phe Ile Ser Glu Val Glu Ser Asp Gly Ala Val Thr Ser Ala Gly |      | 1325 |
|                                                                 | 1330 | 1335 |
| Thr Glu Ile Arg Ala Gly Ser Ile Ser Ser Glu Glu Val Asp Gly Ser |      | 1340 |
| 1345                                                            | 1350 | 1355 |
| Gln Gly Asn Met Met Arg Met Gly Pro Lys Lys Glu Thr Glu Gly Thr |      | 1360 |
|                                                                 | 1365 | 1370 |
| Val Thr Cys Thr Gly Ala Glu Gly Arg Ser Asp Asn Phe Val Ile Cys |      | 1375 |
|                                                                 | 1380 | 1385 |
| Ser Val Thr Gly Ala Gly Pro Arg Glu Glu Arg Met Val Thr Gly Ala |      | 1390 |
|                                                                 | 1395 | 1400 |
| Gly Val Val Leu Gly Asp Asn Asp Ala Pro Pro Gly Thr Ser Ala Ser |      | 1405 |
|                                                                 | 1410 | 1415 |
| Gln Glu Gly Asp Gly Ser Val Asn Asp Gly Thr Glu Gly Glu Ser Ala |      | 1420 |
| 1425                                                            | 1430 | 1435 |
| Val Thr Ser Thr Gly Ile Thr Glu Asp Gly Glu Gly Pro Ala Ser Cys |      | 1440 |
|                                                                 | 1445 | 1450 |
| Thr Gly Ser Glu Asp Ser Ser Glu Gly Phe Ala Ile Ser Ser Glu Ser |      | 1455 |
|                                                                 | 1460 | 1465 |
| Glu Glu Asn Gly Glu Ser Ala Met Asp Ser Thr Val Ala Lys Glu Gly |      | 1470 |
|                                                                 | 1475 | 1480 |
| Thr Asn Val Pro Leu Val Ala Ala Gly Pro Cys Asp Asp Glu Gly Ile |      | 1485 |
|                                                                 | 1490 | 1495 |
| Val Thr Ser Thr Gly Ala Lys Glu Glu Asp Glu Glu Gly Glu Asp Val |      | 1500 |
| 1505                                                            | 1510 | 1515 |
| Val Thr Ser Thr Gly Arg Gly Asn Glu Ile Gly His Ala Ser Thr Cys |      | 1520 |
|                                                                 | 1525 | 1530 |
| Thr Gly Leu Gly Glu Glu Ser Glu Gly Val Leu Ile Cys Glu Ser Ala |      | 1535 |
|                                                                 | 1540 | 1545 |
| Glu Gly Asp Ser Gln Ile Gly Thr Val Val Glu His Val Glu Ala Glu |      | 1550 |
|                                                                 | 1555 | 1560 |
| Ala Gly Ala Ala Ile Met Asn Ala Asn Glu Asn Asn Val Asp Ser Met |      | 1565 |
|                                                                 | 1570 | 1575 |
| Ser Gly Thr Glu Lys Gly Ser Lys Asp Thr Asp Ile Cys Ser Ser Ala |      | 1580 |
| 1585                                                            | 1590 | 1595 |
| Lys Gly Ile Val Glu Ser Ser Val Thr Ser Ala Val Ser Gly Lys Asp |      | 1600 |
|                                                                 | 1605 | 1610 |
| Glu Val Thr Pro Val Pro Gly Gly Cys Glu Gly Pro Met Thr Ser Ala |      | 1615 |
|                                                                 | 1620 | 1625 |
| Ala Ser Asp Gln Ser Asp Ser Gln Leu Glu Lys Val Glu Asp Thr Thr |      | 1630 |
|                                                                 | 1635 | 1640 |
| Ile Ser Thr Gly Leu Val Gly Gly Ser Tyr Asp Val Leu Val Ser Gly |      | 1645 |
|                                                                 | 1650 | 1655 |
| Glu Val Pro Glu Cys Glu Val Ala His Thr Ser Pro Ser Glu Lys Glu |      | 1660 |
| 1665                                                            | 1670 | 1675 |
| Asp Glu Asp Ile Ile Thr Ser Val Glu Asn Glu Glu Cys Asp Gly Leu |      | 1680 |



1685 1690 1695  
Met Ala Thr Thr Ala Ser Gly Asp Ile Thr Asn Gln Asn Ser Leu Ala  
1700 1705 1710  
Gly Gly Lys Asn Gln Gly Lys Val Leu Ile Ile Ser Thr Ser Thr Thr  
1715 1720 1725  
Asn Asp Tyr Thr Pro Gln Val Ser Ala Ile Thr Asp Val Glu Gly Gly  
1730 1735 1740  
Leu Ser Asp Ala Leu Arg Thr Glu Glu Asn Met Glu Gly Thr Arg Val  
1745 1750 1755 1760  
Thr Thr Glu Glu Phe Glu Ala Pro Met Pro Ser Ala Val Ser Gly Asp  
1765 1770 1775  
Asp Ser Gln Leu Thr Ala Ser Arg Ser Glu Glu Lys Asp Glu Cys Ala  
1780 1785 1790  
Met Ile Ser Thr Ser Ile Gly Glu Glu Phe Glu Leu Pro Ile Ser Ser  
1795 1800 1805  
Ala Thr Thr Ile Lys Cys Ala Glu Ser Leu Gln Pro Val Ala Ala Ala  
1810 1815 1820  
Val Glu Glu Arg Ala Thr Gly Pro Val Leu Ile Ser Thr Ala Asp Phe  
1825 1830 1835 1840  
Glu Gly Pro Met Pro Ser Ala Pro Pro Glu Ala Glu Ser Pro Leu Ala  
1845 1850 1855  
Ser Thr Ser Lys Glu Glu Lys Asp Glu Cys Ala Leu Ile Ser Thr Ser  
1860 1865 1870  
Ile Ala Glu Glu Cys Glu Ala Ser Val Ser Gly Val Val Val Glu Ser  
1875 1880 1885  
Glu Asn Glu Arg Ala Gly Thr Val Met Glu Glu Lys Asp Gly Ser Gly  
1890 1895 1900  
Ile Ile Ser Thr Ser Ser Val Glu Asp Cys Glu Gly Pro Val Ser Ser  
1905 1910 1915 1920  
Ala Val Pro Gln Glu Glu Gly Asp Pro Ser Val Thr Pro Ala Glu Glu  
1925 1930 1935  
Met Gly Asp Thr Ala Met Ile Ser Thr Ser Thr Ser Glu Gly Cys Glu  
1940 1945 1950  
Ala Val Met Ile Gly Ala Val Leu Gln Asp Glu Asp Arg Leu Thr Ile  
1955 1960 1965  
Thr Arg Val Glu Asp Leu Ser Asp Ala Ala Ile Ile Ser Thr Ser Thr  
1970 1975 1980  
Ala Glu Cys Met Pro Ile Ser Ala Ser Ile Asp Arg His Glu Glu Asn  
1985 1990 1995 2000  
Gln Leu Thr Ala Asp Asn Pro Glu Gly Asn Gly Asp Leu Ser Ala Thr  
2005 2010 2015  
Glu Val Ser Lys His Lys Val Pro Met Pro Ser Leu Ile Ala Glu Asn  
2020 2025 2030  
Asn Cys Arg Cys Pro Gly Pro Val Arg Gly Gly Lys Glu Pro Gly Pro  
2035 2040 2045  
Val Leu Ala Val Ser Thr Glu Glu Gly His Asn Gly Pro Ser Val His  
2050 2055 2060  
Lys Pro Ser Ala Gly Gln Gly His Pro Ser Ala Val Cys Ala Glu Lys  
2065 2070 2075 2080  
Glu Glu Lys His Gly Lys Glu Cys Pro Glu Ile Gly Pro Phe Ala Gly  
2085 2090 2095  
Arg Gly Gln Lys Glu Ser Thr Leu His Leu Ile Asn Ala Glu Glu Lys  
2100 2105 2110  
Asn Val Leu Leu Asn Ser Leu Gln Lys Glu Asp Lys Ser Pro Glu Thr  
2115 2120 2125  
Gly Thr Ala Gly Gly Ser Ser Thr Ala Ser Tyr Ser Ala Gly Arg Gly  
2130 2135 2140  
Leu Glu Gly Asn Ala Asn Ser Pro Ala His Leu Arg Gly Pro Glu Gln  
2145 2150 2155 2160  
Thr Ser Gly Gln Thr Ala Lys Asp Ser Ser Val Ser Ser Ile Arg Tyr  
2165 2170 2175  
Leu Ala Ala Val Asn Thr Gly Ala Ile Lys Ala Asp Asp Met Pro Pro  
2180 2185 2190  
Val Gln Gly Thr Val Ala Glu His Ser Phe Leu Pro Ala Glu Gln Gln

|                                                                 |      |      |
|-----------------------------------------------------------------|------|------|
| 2195                                                            | 2200 | 2205 |
| Gly Ser Glu Asp Asn Leu Lys Thr Ser Thr Thr Lys Cys Ile Thr Gly |      |      |
| 2210                                                            | 2215 | 2220 |
| Gln Glu Ser Lys Ile Ala Pro Ser His Thr Met Ile Pro Pro Ala Thr |      |      |
| 2225                                                            | 2230 | 2235 |
| Tyr Ser Val Ala Leu Leu Ala Pro Lys Cys Glu Gln Asp Leu Thr Ile |      |      |
| 2245                                                            | 2250 | 2255 |
| Lys Asn Asp Tyr Ser Gly Lys Trp Thr Asp Gln Ala Ser Ala Glu Lys |      |      |
| 2260                                                            | 2265 | 2270 |
| Thr Gly Asp Asp Asn Ser Thr Arg Lys Ser Phe Pro Glu Glu Gly Asp |      |      |
| 2275                                                            | 2280 | 2285 |
| Ile Met Val Thr Val Ser Ser Glu Glu Asn Val Cys Asp Ile Gly Asn |      |      |
| 2290                                                            | 2295 | 2300 |
| Glu Glu Ser Pro Leu Asn Val Leu Gly Gly Leu Lys Leu Lys Ala Asn |      |      |
| 2305                                                            | 2310 | 2315 |
| Leu Lys Met Glu Ala Tyr Val Pro Ser Glu Glu Glu Lys Asn Gly Glu |      |      |
| 2325                                                            | 2330 | 2335 |
| Ile Leu Ala Pro Pro Glu Ser Leu Cys Gly Gly Lys Pro Ser Gly Ile |      |      |
| 2340                                                            | 2345 | 2350 |
| Ala Glu Leu Gln Arg Glu Pro Leu Leu Val Asn Glu Ser Leu Asn Val |      |      |
| 2355                                                            | 2360 | 2365 |
| Glu Asn Ser Gly Phe Arg Thr Asn Glu Glu Ile His Ser Glu Ser Tyr |      |      |
| 2370                                                            | 2375 | 2380 |
| Asn Lys Gly Glu Ile Ser Ser Gly Arg Lys Asp Asn Ala Glu Ala Ile |      |      |
| 2385                                                            | 2390 | 2395 |
| Ser Gly His Ser Val Glu Ala Asp Pro Lys Glu Val Glu Glu Glu Glu |      |      |
| 2405                                                            | 2410 | 2415 |
| Arg His Met Pro Lys Arg Lys Arg Lys Gln His Tyr Leu Ser Ser Glu |      |      |
| 2420                                                            | 2425 | 2430 |
| Asp Glu Pro Asp Asp Asn Pro Asp Val Leu Asp Ser Arg Ile Glu Thr |      |      |
| 2435                                                            | 2440 | 2445 |
| Ala Gln Arg Gln Cys Pro Glu Thr Glu Pro His Ala Thr Lys Glu Glu |      |      |
| 2450                                                            | 2455 | 2460 |
| Asn Ser Arg Asp Leu Glu Glu Leu Pro Lys Thr Ser Ser Glu Thr Asn |      |      |
| 2465                                                            | 2470 | 2475 |
| Ser Thr Thr Ser Arg Val Met Glu Glu Lys Asp Glu Tyr Ser Ser Ser |      |      |
| 2485                                                            | 2490 | 2495 |
| Glu Thr Thr Gly Glu Lys Pro Glu Gln Asn Asp Asp Asp Thr Ile Lys |      |      |
| 2500                                                            | 2505 | 2510 |
| Ser Gln Glu                                                     |      |      |
| 2515                                                            |      |      |

&lt;210&gt; 3915

&lt;211&gt; 2515

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3915

|                                                                 |    |    |
|-----------------------------------------------------------------|----|----|
| Pro Gly Ile Arg Val Gly Ile Thr Ser Gln Thr Gly Leu Ser Ser Asn |    |    |
| 1                                                               | 5  | 10 |
| Leu Gln Glu Asn Cys Ser Lys Leu Ala Phe Ile Ser Ser His Gly Thr |    |    |
| 20                                                              | 25 | 30 |
| Glu Lys Gln Leu Gln Cys Met Pro Met Glu Gly Arg Gly Arg Ala Ser |    |    |
| 35                                                              | 40 | 45 |
| Ser Ser Ile Ser Asp Leu Gln Gly Lys Gly Phe Glu Lys Gly Thr Gly |    |    |
| 50                                                              | 55 | 60 |
| Glu Lys His Val Pro Gly Val Gly Ser Ala Arg His Ser Pro Gln Ala |    |    |
| 65                                                              | 70 | 75 |
| Ser Ala Gly Gly Ser Pro Trp Gln Arg Gly Lys Ala Gln Thr Arg Trp |    |    |
| 85                                                              | 90 | 95 |
| Leu Gly Lys Pro Asp Pro Gly Arg Lys Arg Arg Arg Gly Ser Pro Gln |    |    |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |  |
| Glu | Glu | Gly | Gly | Leu | Arg | Val | Ser | Ala | Ala | Ala | Arg | Leu | Leu | Cys | Ser |  |  |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |  |
| Gly | Ala | Asn | Arg | Cys | Lys | Val | Leu | Val | Arg | Gln | Asn | Ser | Thr | Pro | Asn |  |  |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |  |
| Thr | Gln | Gln | Pro | Ala | Val | His | Pro | Ser | Thr | Pro | Pro | Ser | Arg | Pro | Leu |  |  |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |  |  |
| Pro | Gln | Ala | Gly | Arg | Cys | Leu | Val | Ala | Pro | Leu | Arg | Pro | His | Pro | Asp |  |  |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |  |  |
| Trp | Val | Ala | Ala | Lys | Thr | Leu | Ala | Lys | Ala | Leu | Arg | Ala | Pro | Gly | Lys |  |  |
|     |     |     | 180 |     |     |     | 185 |     |     |     |     |     | 190 |     |     |  |  |
| Pro | Trp | Arg | Leu | Ala | Ala | Pro | Ser | Pro | Leu | Gly | Asp | Leu | Gly | Ala | Pro |  |  |
|     | 195 |     |     |     |     | 200 |     |     |     |     |     | 205 |     |     |     |  |  |
| Gly | Leu | Pro | Gly | Pro | Ser | Thr | Ala | Pro | Arg | Thr | Leu | Ser | Val | Glu | Glu |  |  |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |  |  |
| Pro | Gly | Val | Glu | Cys | Asn | Gln | Leu | Cys | Leu | Tyr | Ala | Asp | Val | Thr | Asp |  |  |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |  |  |
| Pro | Val | Leu | Cys | Leu | Gly | Gln | Lys | Asp | Pro | Gly | Val | Glu | Gly | Lys | His |  |  |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |  |  |
| Cys | Glu | Lys | Glu | Lys | Ile | Ser | Ser | Ser | Lys | Glu | Leu | Lys | His | Val | His |  |  |
|     |     | 260 |     |     |     |     | 265 |     |     |     |     |     | 270 |     |     |  |  |
| Ala | Lys | Ser | Glu | Pro | Ser | Lys | Pro | Ala | Arg | Arg | Leu | Ser | Glu | Ser | Leu |  |  |
|     | 275 |     |     |     |     |     | 280 |     |     |     |     |     | 285 |     |     |  |  |
| His | Val | Val | Asp | Glu | Asn | Lys | Asn | Glu | Ser | Lys | Ile | Glu | Arg | Glu | His |  |  |
|     | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |  |  |
| Lys | Arg | Arg | Thr | Ser | Thr | Pro | Val | Ile | Met | Glu | Gly | Val | Gln | Glu | Glu |  |  |
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |  |  |
| Thr | Asp | Thr | Arg | Asp | Val | Lys | Arg | Gln | Val | Glu | Arg | Ser | Glu | Ile | Cys |  |  |
|     |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |  |  |
| Thr | Glu | Glu | Pro | Gln | Lys | Gln | Lys | Ser | Thr | Leu | Lys | Asn | Glu | Lys | His |  |  |
|     |     | 340 |     |     |     |     | 345 |     |     |     |     |     | 350 |     |     |  |  |
| Leu | Lys | Lys | Asp | Asp | Ser | Glu | Thr | Pro | His | Leu | Lys | Ser | Leu | Leu | Lys |  |  |
|     |     | 355 |     |     |     |     | 360 |     |     |     |     |     | 365 |     |     |  |  |
| Lys | Glu | Val | Lys | Ser | Ser | Lys | Glu | Lys | Pro | Glu | Arg | Glu | Lys | Thr | Pro |  |  |
|     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |  |  |
| Ser | Glu | Asp | Lys | Leu | Ser | Val | Lys | His | Lys | Tyr | Lys | Gly | Asp | Cys | Met |  |  |
| 385 |     |     |     |     | 390 |     |     |     |     | 395 |     |     |     |     | 400 |  |  |
| His | Lys | Thr | Gly | Asp | Glu | Thr | Glu | Leu | His | Ser | Ser | Glu | Lys | Gly | Leu |  |  |
|     |     |     |     | 405 |     |     |     |     | 410 |     |     |     |     | 415 |     |  |  |
| Lys | Val | Glu | Glu | Asn | Ile | Gln | Lys | Gln | Ser | Gln | Gln | Thr | Lys | Leu | Ser |  |  |
|     |     | 420 |     |     |     |     | 425 |     |     |     |     |     | 430 |     |     |  |  |
| Ser | Asp | Asp | Lys | Thr | Glu | Arg | Lys | Ser | Lys | His | Arg | Asn | Glu | Arg | Lys |  |  |
|     |     | 435 |     |     |     |     | 440 |     |     |     |     |     | 445 |     |     |  |  |
| Leu | Ser | Val | Leu | Gly | Lys | Asp | Gly | Lys | Pro | Val | Ser | Glu | Tyr | Ile | Ile |  |  |
|     | 450 |     |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |  |  |
| Lys | Thr | Asp | Glu | Asn | Val | Arg | Lys | Glu | Asn | Asn | Lys | Lys | Glu | Arg | Arg |  |  |
| 465 |     |     |     |     | 470 |     |     |     |     | 475 |     |     |     |     | 480 |  |  |
| Leu | Ser | Ala | Glu | Lys | Thr | Lys | Ala | Glu | His | Lys | Ser | Arg | Arg | Ser | Ser |  |  |
|     |     |     |     | 485 |     |     |     |     | 490 |     |     |     |     | 495 |     |  |  |
| Asp | Ser | Lys | Ile | Gln | Lys | Asp | Ser | Leu | Gly | Ser | Lys | Gln | His | Gly | Ile |  |  |
|     |     | 500 |     |     |     |     | 505 |     |     |     |     |     | 510 |     |     |  |  |
| Thr | Leu | Gln | Arg | Arg | Ser | Glu | Ser | Tyr | Ser | Glu | Asp | Lys | Cys | Asp | Met |  |  |
|     |     | 515 |     |     |     |     | 520 |     |     |     |     |     | 525 |     |     |  |  |
| Asp | Ser | Thr | Asn | Met | Asp | Ser | Asn | Leu | Lys | Pro | Glu | Glu | Val | Val | His |  |  |
|     | 530 |     |     |     |     | 535 |     |     |     |     |     | 540 |     |     |     |  |  |
| Lys | Glu | Lys | Arg | Arg | Thr | Lys | Ser | Leu | Leu | Glu | Glu | Lys | Leu | Val | Leu |  |  |
| 545 |     |     |     |     | 550 |     |     |     |     | 555 |     |     |     |     | 560 |  |  |
| Lys | Ser | Lys | Ser | Lys | Thr | Gln | Gly | Lys | Gln | Val | Lys | Val | Val | Glu | Thr |  |  |
|     |     |     |     | 565 |     |     |     |     | 570 |     |     |     |     | 575 |     |  |  |
| Glu | Leu | Gln | Glu | Gly | Ala | Thr | Lys | Gln | Ala | Thr | Thr | Pro | Lys | Pro | Asp |  |  |
|     |     |     |     | 580 |     |     |     |     | 585 |     |     |     | 590 |     |     |  |  |
| Lys | Glu | Lys | Asn | Thr | Glu | Glu | Asn | Asp | Ser | Glu | Lys | Gln | Arg | Lys | Ser |  |  |
|     | 595 |     |     |     |     | 600 |     |     |     |     |     | 605 |     |     |     |  |  |
| Lys | Val | Glu | Asp | Lys | Pro | Phe | Glu | Glu | Thr | Gly | Val | Glu | Pro | Val | Leu |  |  |

|                         |                                         |                         |
|-------------------------|-----------------------------------------|-------------------------|
| 610                     | 615                                     | 620                     |
| Glu Thr Ala Ser Ser Ser | Ala His Ser Thr                         | Gln Lys Asp Ser Ser His |
| 625                     | 630                                     | 635                     |
| Arg Ala Lys Leu Pro Leu | Ala Lys Glu Lys Tyr Lys Ser Asp Lys Asp | 640                     |
| 645                     | 650                                     | 655                     |
| Ser Thr Ser Thr Arg Leu | Glu Arg Lys Leu Ser Asp Gly His Lys Ser | 660                     |
| 660                     | 665                                     | 670                     |
| Arg Ser Leu Lys His Ser | Ser Lys Asp Ile Lys Lys Lys Asp Glu Asn | 675                     |
| 675                     | 680                                     | 685                     |
| Lys Ser Asp Asp Lys Asp | Gly Lys Glu Val Asp Ser Ser His Glu Lys | 690                     |
| 690                     | 695                                     | 700                     |
| Ala Arg Gly Asn Ser Ser | Leu Met Glu Lys Lys Leu Ser Arg Arg Leu | 705                     |
| 705                     | 710                                     | 715                     |
| Cys Glu Asn Arg Arg Gly | Ser Leu Ser Gln Glu Met Ala Lys Gly Glu | 720                     |
| 725                     | 730                                     | 735                     |
| Glu Lys Leu Ala Ala Asn | Thr Leu Ser Thr Pro Ser Gly Ser Ser Leu | 740                     |
| 740                     | 745                                     | 750                     |
| Gln Arg Pro Lys Lys Ser | Gly Asp Met Thr Leu Ile Pro Glu Gln Glu | 755                     |
| 755                     | 760                                     | 765                     |
| Pro Met Glu Ile Asp Ser | Glu Pro Gly Val Glu Asn Val Phe Glu Val | 770                     |
| 770                     | 775                                     | 780                     |
| Ser Lys Thr Gln Asp Asn | Arg Asn Asn Asn Ser His Gln Asp Ile Asp | 785                     |
| 785                     | 790                                     | 795                     |
| Ser Glu Asn Met Lys Gln | Lys Thr Ser Ala Thr Val Gln Lys Asp Glu | 800                     |
| 805                     | 810                                     | 815                     |
| Leu Arg Thr Cys Thr Ala | Asp Ser Lys Ala Thr Ala Pro Ala Tyr Lys | 820                     |
| 820                     | 825                                     | 830                     |
| Pro Gly Arg Gly Thr Gly | Val Asn Ser Asn Ser Glu Lys His Ala Asp | 835                     |
| 835                     | 840                                     | 845                     |
| His Arg Ser Thr Leu Thr | Lys Lys Met His Ile Gln Ser Ala Val Ser | 850                     |
| 850                     | 855                                     | 860                     |
| Lys Met Asn Pro Gly Glu | Lys Glu Pro Ile His Arg Gly Thr Thr Glu | 865                     |
| 865                     | 870                                     | 875                     |
| Val Asn Ile Asp Ser Glu | Thr Val His Arg Met Leu Leu Ser Ala Pro | 880                     |
| 885                     | 890                                     | 895                     |
| Ser Glu Asn Asp Arg Val | Gln Lys Asn Leu Lys Asn Thr Ala Ala Glu | 900                     |
| 900                     | 905                                     | 910                     |
| Glu His Val Ala Gln Gly | Asp Ala Thr Leu Glu His Ser Thr Asn Leu | 915                     |
| 915                     | 920                                     | 925                     |
| Asp Ser Ser Pro Ser Leu | Ser Ser Val Thr Val Val Pro Leu Arg Glu | 930                     |
| 930                     | 935                                     | 940                     |
| Ser Tyr Asp Pro Asp Val | Ile Pro Leu Phe Asp Lys Arg Thr Val Leu | 945                     |
| 945                     | 950                                     | 955                     |
| Glu Gly Ser Thr Ala Ser | Thr Ser Pro Ala Asp His Ser Ala Leu Pro | 960                     |
| 965                     | 970                                     | 975                     |
| Asn Gln Ser Leu Thr Val | Arg Glu Ser Glu Val Leu Lys Thr Ser Asp | 980                     |
| 980                     | 985                                     | 990                     |
| Ser Lys Glu Gly Gly Glu | Gly Phe Thr Val Asp Thr Pro Ala Lys Ala | 995                     |
| 995                     | 1000                                    | 1005                    |
| Ser Ile Thr Ser Lys Arg | His Ile Pro Glu Ala His Gln Ala Thr Leu | 1010                    |
| 1010                    | 1015                                    | 1020                    |
| Leu Asp Gly Lys Gln Gly | Lys Val Ile Met Pro Leu Gly Ser Lys Leu | 1025                    |
| 1025                    | 1030                                    | 1035                    |
| Thr Gly Val Ile Val Glu | Asn Glu Asn Ile Thr Lys Glu Gly Gly Leu | 1040                    |
| 1045                    | 1050                                    | 1055                    |
| Val Asp Met Ala Lys Lys | Glu Asn Asp Leu Asn Ala Glu Pro Asn Leu | 1060                    |
| 1060                    | 1065                                    | 1070                    |
| Lys Gln Thr Ile Lys Ala | Thr Val Glu Asn Gly Lys Lys Asp Gly Ile | 1075                    |
| 1075                    | 1080                                    | 1085                    |
| Ala Val Asp His Val Val | Gly Leu Asn Thr Glu Lys Tyr Ala Glu Thr | 1090                    |
| 1090                    | 1095                                    | 1100                    |
| Val Lys Leu Lys His Lys | Arg Ser Pro Gly Lys Val Lys Asp Ile Ser | 1105                    |
| 1105                    | 1110                                    | 1115                    |
| Ile Asp Val Glu Arg Arg | Asn Glu Asn Ser Glu Val Asp Thr Ser Ala | 1120                    |

|                                                                 |      |      |      |
|-----------------------------------------------------------------|------|------|------|
|                                                                 | 1125 | 1130 | 1135 |
| Gly Ser Gly Ser Ala Pro Ser Val Leu His Gln Arg Asn Gly Gln Thr |      |      |      |
|                                                                 | 1140 | 1145 | 1150 |
| Glu Asp Val Ala Thr Gly Pro Arg Arg Ala Glu Lys Thr Ser Val Ala |      |      |      |
|                                                                 | 1155 | 1160 | 1165 |
| Thr Ser Thr Glu Gly Lys Asp Lys Asp Val Thr Leu Ser Pro Val Lys |      |      |      |
|                                                                 | 1170 | 1175 | 1180 |
| Ala Gly Pro Ala Thr Thr Thr Ser Ser Glu Thr Arg Gln Ser Glu Val |      |      |      |
| 1185                                                            | 1190 | 1195 | 1200 |
| Ala Leu Pro Cys Thr Ser Ile Glu Ala Asp Glu Gly Leu Ile Ile Gly |      |      |      |
|                                                                 | 1205 | 1210 | 1215 |
| Thr His Ser Arg Asn Asn Pro Leu His Val Gly Ala Glu Ala Ser Glu |      |      |      |
|                                                                 | 1220 | 1225 | 1230 |
| Cys Thr Val Phe Ala Ala Ala Glu Glu Gly Gly Ala Val Val Thr Glu |      |      |      |
|                                                                 | 1235 | 1240 | 1245 |
| Gly Phe Ala Glu Ser Glu Thr Phe Leu Thr Ser Thr Lys Glu Gly Glu |      |      |      |
|                                                                 | 1250 | 1255 | 1260 |
| Ser Gly Glu Cys Ala Val Ala Glu Ser Glu Asp Arg Ala Ala Asp Leu |      |      |      |
| 1265                                                            | 1270 | 1275 | 1280 |
| Leu Ala Val His Ala Val Lys Ile Glu Ala Asn Val Asn Ser Val Val |      |      |      |
|                                                                 | 1285 | 1290 | 1295 |
| Thr Glu Glu Lys Asp Asp Ala Val Thr Ser Ala Gly Ser Glu Glu Lys |      |      |      |
|                                                                 | 1300 | 1305 | 1310 |
| Cys Asp Gly Ser Leu Ser Arg Asp Ser Glu Ile Val Glu Gly Thr Ile |      |      |      |
|                                                                 | 1315 | 1320 | 1325 |
| Thr Phe Ile Ser Glu Val Glu Ser Asp Gly Ala Val Thr Ser Ala Gly |      |      |      |
|                                                                 | 1330 | 1335 | 1340 |
| Thr Glu Ile Arg Ala Gly Ser Ile Ser Ser Glu Glu Val Asp Gly Ser |      |      |      |
| 1345                                                            | 1350 | 1355 | 1360 |
| Gln Gly Asn Met Met Arg Met Gly Pro Lys Lys Glu Thr Glu Gly Thr |      |      |      |
|                                                                 | 1365 | 1370 | 1375 |
| Val Thr Cys Thr Gly Ala Glu Gly Arg Ser Asp Asn Phe Val Ile Cys |      |      |      |
|                                                                 | 1380 | 1385 | 1390 |
| Ser Val Thr Gly Ala Gly Pro Arg Glu Glu Arg Met Val Thr Gly Ala |      |      |      |
|                                                                 | 1395 | 1400 | 1405 |
| Gly Val Val Leu Gly Asp Asn Asp Ala Pro Pro Gly Thr Ser Ala Ser |      |      |      |
|                                                                 | 1410 | 1415 | 1420 |
| Gln Glu Gly Asp Gly Ser Val Asn Asp Gly Thr Glu Gly Glu Ser Ala |      |      |      |
| 1425                                                            | 1430 | 1435 | 1440 |
| Val Thr Ser Thr Gly Ile Thr Glu Asp Gly Glu Gly Pro Ala Ser Cys |      |      |      |
|                                                                 | 1445 | 1450 | 1455 |
| Thr Gly Ser Glu Asp Ser Ser Glu Gly Phe Ala Ile Ser Ser Glu Ser |      |      |      |
|                                                                 | 1460 | 1465 | 1470 |
| Glu Glu Asn Gly Glu Ser Ala Met Asp Ser Thr Val Ala Lys Glu Gly |      |      |      |
|                                                                 | 1475 | 1480 | 1485 |
| Thr Asn Val Pro Leu Val Ala Ala Gly Pro Cys Asp Asp Glu Gly Ile |      |      |      |
|                                                                 | 1490 | 1495 | 1500 |
| Val Thr Ser Thr Gly Ala Lys Glu Glu Asp Glu Glu Gly Glu Asp Val |      |      |      |
| 1505                                                            | 1510 | 1515 | 1520 |
| Val Thr Ser Thr Gly Arg Gly Asn Glu Ile Gly His Ala Ser Thr Cys |      |      |      |
|                                                                 | 1525 | 1530 | 1535 |
| Thr Gly Leu Gly Glu Glu Ser Glu Gly Val Leu Ile Cys Glu Ser Ala |      |      |      |
|                                                                 | 1540 | 1545 | 1550 |
| Glu Gly Asp Ser Gln Ile Gly Thr Val Val Glu His Val Glu Ala Glu |      |      |      |
|                                                                 | 1555 | 1560 | 1565 |
| Ala Gly Ala Ala Ile Met Asn Ala Asn Glu Asn Asn Val Asp Ser Met |      |      |      |
|                                                                 | 1570 | 1575 | 1580 |
| Ser Gly Thr Glu Lys Gly Ser Lys Asp Thr Asp Ile Cys Ser Ser Ala |      |      |      |
| 1585                                                            | 1590 | 1595 | 1600 |
| Lys Gly Ile Val Glu Ser Ser Val Thr Ser Ala Val Ser Gly Lys Asp |      |      |      |
|                                                                 | 1605 | 1610 | 1615 |
| Glu Val Thr Pro Val Pro Gly Gly Cys Glu Gly Pro Met Thr Ser Ala |      |      |      |
|                                                                 | 1620 | 1625 | 1630 |
| Ala Ser Asp Gln Ser Asp Ser Gln Leu Glu Lys Val Glu Asp Thr Thr |      |      |      |

1635 1640 1645  
Ile Ser Thr Gly Leu Val Gly Gly Ser Tyr Asp Val Leu Val Ser Gly  
1650 1655 1660  
Glu Val Pro Glu Cys Glu Val Ala His Thr Ser Pro Ser Glu Lys Glu  
1665 1670 1675 1680  
Asp Glu Asp Ile Ile Thr Ser Val Glu Asn Glu Glu Cys Asp Gly Leu  
1685 1690 1695  
Met Ala Thr Thr Ala Ser Gly Asp Ile Thr Asn Gln Asn Ser Leu Ala  
1700 1705 1710  
Gly Gly Lys Asn Gln Gly Lys Val Leu Ile Ile Ser Thr Ser Thr Thr  
1715 1720 1725  
Asn Asp Tyr Thr Pro Gln Val Ser Ala Ile Thr Asp Val Glu Gly Gly  
1730 1735 1740  
Leu Ser Asp Ala Leu Arg Thr Glu Glu Asn Met Glu Gly Thr Arg Val  
1745 1750 1755 1760  
Thr Thr Glu Glu Phe Glu Ala Pro Met Pro Ser Ala Val Ser Gly Asp  
1765 1770 1775  
Asp Ser Gln Leu Thr Ala Ser Arg Ser Glu Glu Lys Asp Glu Cys Ala  
1780 1785 1790  
Met Ile Ser Thr Ser Ile Gly Glu Glu Phe Glu Leu Pro Ile Ser Ser  
1795 1800 1805  
Ala Thr Thr Ile Lys Cys Ala Glu Ser Leu Gln Pro Val Ala Ala Ala  
1810 1815 1820  
Val Glu Glu Arg Ala Thr Gly Pro Val Leu Ile Ser Thr Ala Asp Phe  
1825 1830 1835 1840  
Glu Gly Pro Met Pro Ser Ala Pro Pro Glu Ala Glu Ser Pro Leu Ala  
1845 1850 1855  
Ser Thr Ser Lys Glu Glu Lys Asp Glu Cys Ala Leu Ile Ser Thr Ser  
1860 1865 1870  
Ile Ala Glu Glu Cys Glu Ala Ser Val Ser Gly Val Val Val Glu Ser  
1875 1880 1885  
Glu Asn Glu Arg Ala Gly Thr Val Met Glu Glu Lys Asp Gly Ser Gly  
1890 1895 1900  
Ile Ile Ser Thr Ser Ser Val Glu Asp Cys Glu Gly Pro Val Ser Ser  
1905 1910 1915 1920  
Ala Val Pro Gln Glu Glu Gly Asp Pro Ser Val Thr Pro Ala Glu Glu  
1925 1930 1935  
Met Gly Asp Thr Ala Met Ile Ser Thr Ser Thr Ser Glu Gly Cys Glu  
1940 1945 1950  
Ala Val Met Ile Gly Ala Val Leu Gln Asp Glu Asp Arg Leu Thr Ile  
1955 1960 1965  
Thr Arg Val Glu Asp Leu Ser Asp Ala Ala Ile Ile Ser Thr Ser Thr  
1970 1975 1980  
Ala Glu Cys Met Pro Ile Ser Ala Ser Ile Asp Arg His Glu Glu Asn  
1985 1990 1995 2000  
Gln Leu Thr Ala Asp Asn Pro Glu Gly Asn Gly Asp Leu Ser Ala Thr  
2005 2010 2015  
Glu Val Ser Lys His Lys Val Pro Met Pro Ser Leu Ile Ala Glu Asn  
2020 2025 2030  
Asn Cys Arg Cys Pro Gly Pro Val Arg Gly Gly Lys Glu Pro Gly Pro  
2035 2040 2045  
Val Leu Ala Val Ser Thr Glu Glu Gly His Asn Gly Pro Ser Val His  
2050 2055 2060  
Lys Pro Ser Ala Gly Gln Gly His Pro Ser Ala Val Cys Ala Glu Lys  
2065 2070 2075 2080  
Glu Glu Lys His Gly Lys Glu Cys Pro Glu Ile Gly Pro Phe Ala Gly  
2085 2090 2095  
Arg Gly Gln Lys Glu Ser Thr Leu His Leu Ile Asn Ala Glu Glu Lys  
2100 2105 2110  
Asn Val Leu Leu Asn Ser Leu Gln Lys Glu Asp Lys Ser Pro Glu Thr  
2115 2120 2125  
Gly Thr Ala Gly Gly Ser Ser Thr Ala Ser Tyr Ser Ala Gly Arg Gly  
2130 2135 2140  
Leu Glu Gly Asn Ala Asn Ser Pro Ala His Leu Arg Gly Pro Glu Gln



2145                      2150                      2155                      2160  
 Thr Ser Gly Gln Thr Ala Lys Asp Ser Ser Val Ser Ser Ile Arg Tyr  
                                  2165                      2170                      2175  
 Leu Ala Ala Val Asn Thr Gly Ala Ile Lys Ala Asp Asp Met Pro Pro  
                                  2180                      2185                      2190  
 Val Gln Gly Thr Val Ala Glu His Ser Phe Leu Pro Ala Glu Gln Gln  
                                  2195                      2200                      2205  
 Gly Ser Glu Asp Asn Leu Lys Thr Ser Thr Thr Lys Cys Ile Thr Gly  
                                  2210                      2215                      2220  
 Gln Glu Ser Lys Ile Ala Pro Ser His Thr Met Ile Pro Pro Ala Thr  
 2225                      2230                      2235                      2240  
 Tyr Ser Val Ala Leu Leu Ala Pro Lys Cys Glu Gln Asp Leu Thr Ile  
                                  2245                      2250                      2255  
 Lys Asn Asp Tyr Ser Gly Lys Trp Thr Asp Gln Ala Ser Ala Glu Lys  
                                  2260                      2265                      2270  
 Thr Gly Asp Asp Asn Ser Thr Arg Lys Ser Phe Pro Glu Glu Gly Asp  
                                  2275                      2280                      2285  
 Ile Met Val Thr Val Ser Ser Glu Glu Asn Val Cys Asp Ile Gly Asn  
                                  2290                      2295                      2300  
 Glu Glu Ser Pro Leu Asn Val Leu Gly Gly Leu Lys Leu Lys Ala Asn  
 2305                      2310                      2315                      2320  
 Leu Lys Met Glu Ala Tyr Val Pro Ser Glu Glu Glu Lys Asn Gly Glu  
                                  2325                      2330                      2335  
 Ile Leu Ala Pro Pro Glu Ser Leu Cys Gly Gly Lys Pro Ser Gly Ile  
                                  2340                      2345                      2350  
 Ala Glu Leu Gln Arg Glu Pro Leu Leu Val Asn Glu Ser Leu Asn Val  
                                  2355                      2360                      2365  
 Glu Asn Ser Gly Phe Arg Thr Asn Glu Glu Ile His Ser Glu Ser Tyr  
                                  2370                      2375                      2380  
 Asn Lys Gly Glu Ile Ser Ser Gly Arg Lys Asp Asn Ala Glu Ala Ile  
 2385                      2390                      2395                      2400  
 Ser Gly His Ser Val Glu Ala Asp Pro Lys Glu Val Glu Glu Glu Glu  
                                  2405                      2410                      2415  
 Arg His Met Pro Lys Arg Lys Arg Lys Gln His Tyr Leu Ser Ser Glu  
                                  2420                      2425                      2430  
 Asp Glu Pro Asp Asp Asn Pro Asp Val Leu Asp Ser Arg Ile Glu Thr  
                                  2435                      2440                      2445  
 Ala Gln Arg Gln Cys Pro Glu Thr Glu Pro His Ala Thr Lys Glu Glu  
                                  2450                      2455                      2460  
 Asn Ser Arg Asp Leu Glu Glu Leu Pro Lys Thr Ser Ser Glu Thr Asn  
 2465                      2470                      2475                      2480  
 Ser Thr Thr Ser Arg Val Met Glu Glu Lys Asp Glu Tyr Ser Ser Ser  
                                  2485                      2490                      2495  
 Glu Thr Thr Gly Glu Lys Pro Glu Gln Asn Asp Asp Asp Thr Ile Lys  
                                  2500                      2505                      2510  
 Ser Gln Glu  
                                  2515

<210> 3916  
 <211> 257  
 <212> PRT  
 <213> Homo sapiens

<400> 3916  
 Gly Pro Phe Gly Val Leu Trp Pro Ser Ala Lys Pro Gly Pro Val Thr  
   1                                  5                                  10                                  15  
 Ala Val Glu Ala Arg Pro Pro Asp Ala Ser Asp Pro Glu Gly Leu Arg  
                                   20                                  25                                  30  
 Gly Gly Ser Pro Ala Pro Leu Leu Ala Pro Gly Pro Leu Asp Pro Ser  
                                   35                                  40                                  45  
 Gly Arg Leu His Pro Ala Val Ser Met Met Ser Tyr Leu Lys Gln Pro

|                                                                 |     |     |
|-----------------------------------------------------------------|-----|-----|
| 50                                                              | 55  | 60  |
| Pro Tyr Gly Met Asn Gly Leu Gly Leu Ala Gly Pro Ala Met Asp Leu |     |     |
| 65                                                              | 70  | 75  |
| Leu His Pro Ser Val Gly Tyr Pro Ala Thr Pro Arg Lys Gln Arg Arg |     | 80  |
|                                                                 | 85  | 90  |
| Glu Arg Thr Thr Phe Thr Arg Ser Gln Leu Asp Val Leu Glu Ala Leu |     | 95  |
|                                                                 | 100 | 105 |
| Phe Ala Lys Thr Arg Tyr Pro Asp Ile Phe Met Arg Glu Glu Val Ala |     | 110 |
|                                                                 | 115 | 120 |
| Leu Lys Ile Asn Leu Pro Glu Ser Arg Val Gln Val Trp Phe Lys Asn |     | 125 |
|                                                                 | 130 | 135 |
| Arg Arg Ala Lys Cys Arg Gln Gln Gln Gln Ser Gly Ser Gly Thr Lys |     | 140 |
|                                                                 | 145 | 150 |
| Ser Arg Pro Ala Lys Lys Lys Ser Ser Pro Val Arg Glu Ser Ser Gly |     | 155 |
|                                                                 | 165 | 170 |
| Ser Glu Ser Ser Gly Gln Phe Thr Pro Pro Ala Val Ser Ser Ser Ala |     | 175 |
|                                                                 | 180 | 185 |
| Ser Ser Ser Ser Ser Ala Ser Ser Ser Ser Ala Asn Pro Ala Ala Ala |     | 190 |
|                                                                 | 195 | 200 |
| Ala Ala Ala Gly Leu Val Val Ala Lys Leu Pro Cys Pro Leu His Ile |     | 205 |
|                                                                 | 210 | 215 |
| Phe Ser Leu Cys Val Phe Ile Glu Glu Asn Arg Leu Val Ser Gly Ser |     | 220 |
|                                                                 | 225 | 230 |
| Trp Ala Arg Asp Ile Arg Ser Val Glu Glu Thr Asp Lys Ser Gly Tyr |     | 235 |
|                                                                 | 245 | 250 |
|                                                                 |     | 255 |
| Arg                                                             |     |     |
| 257                                                             |     |     |

<210> 3917  
 <211> 258  
 <212> PRT  
 <213> Homo sapiens

<400> 3917

|                                                                 |     |     |
|-----------------------------------------------------------------|-----|-----|
| Arg Asn Ile Pro Gly Arg Arg Phe Arg Pro Pro Gly Leu Arg Arg Leu |     |     |
| 1                                                               | 5   | 10  |
| Leu Lys Gly Pro His Met Pro Arg Glu Pro Arg Gly Tyr Arg Thr Arg |     | 15  |
|                                                                 | 20  | 25  |
| Val Pro Ala Leu Arg Glu Leu Val Pro Ser Ser His Ala Gly Ser Gly |     | 30  |
|                                                                 | 35  | 40  |
| Ala Ser Glu His Cys Gln Asn Asn Arg Gln Gly Ser Arg Gln His Arg |     | 45  |
|                                                                 | 50  | 55  |
| Ala Ser Arg Asn Val Gln Ala Gly Gly Ala Leu Ala Pro Pro Arg His |     | 60  |
|                                                                 | 65  | 70  |
| Leu Cys Gly Leu Cys Ser Arg Leu His Phe Leu Lys Pro Asp Leu Ser |     | 75  |
|                                                                 | 85  | 90  |
| Val Arg Ala Ala Pro Ser Arg Ala Gly Ala Ser Val Met Ala Leu Arg |     | 95  |
|                                                                 | 100 | 105 |
| Lys Glu Leu Leu Lys Ser Ile Trp Tyr Ala Phe Thr Ala Leu Asp Val |     | 110 |
|                                                                 | 115 | 120 |
| Glu Lys Ser Gly Lys Val Ser Lys Ser Gln Leu Arg Val Leu Ser His |     | 125 |
|                                                                 | 130 | 135 |
| Asn Leu Tyr Thr Val Leu His Ile Pro His Asp Pro Val Ala Leu Glu |     | 140 |
|                                                                 | 145 | 150 |
| Glu His Phe Arg Asp Asp Asp Asp Gly Pro Val Ser Ser Gln Gly Tyr |     | 155 |
|                                                                 | 165 | 170 |
| Met Pro Tyr Leu Asn Lys Tyr Ile Leu Asp Lys Val Glu Glu Gly Ala |     | 175 |
|                                                                 | 180 | 185 |
| Phe Val Lys Glu His Phe Asp Glu Leu Cys Trp Thr Leu Thr Ala Lys |     | 190 |
|                                                                 | 195 | 200 |
| Lys Asn Tyr Arg Ala Asp Ser Asn Gly Asn Ser Met Leu Ser Asn Gln |     | 205 |

|                                                                 |     |     |
|-----------------------------------------------------------------|-----|-----|
| 210                                                             | 215 | 220 |
| Asp Ala Phe Arg Leu Trp Cys Leu Phe Asn Phe Leu Ser Glu Asp Lys |     |     |
| 225                                                             | 230 | 235 |
| Tyr Pro Leu Ile Met Asp Pro Asp Glu Gly Glu Tyr Leu Leu Lys Arg |     | 240 |
|                                                                 | 245 | 250 |
|                                                                 |     | 255 |
| Tyr Ser                                                         |     |     |
| 258                                                             |     |     |

<210> 3918  
 <211> 103  
 <212> PRT  
 <213> Homo sapiens

<400> 3918

|                                                                 |  |
|-----------------------------------------------------------------|--|
| Trp Gln Asp Leu Val Cys Leu Gly Gly Ser Arg Ala Gln Glu Gln Lys |  |
| 1 5 10 15                                                       |  |
| Pro Leu Gln Gln Leu Trp Asn Ala Ile Leu Leu Val Ala Met Leu Leu |  |
| 20 25 30                                                        |  |
| Cys Thr Gly Leu Val Val Gln Ala Gln Arg Gln Ala Ser Arg Gln Ser |  |
| 35 40 45                                                        |  |
| Gln Arg Glu Leu Gly Gly Gln Val Asp Leu Phe Lys Arg Arg Val Val |  |
| 50 55 60                                                        |  |
| Arg Arg Leu Ala Ser Leu Lys Thr Arg Arg Cys Arg Leu Ser Arg Ala |  |
| 65 70 75 80                                                     |  |
| Ala Gln Gly Leu Pro Asp Pro Gly Ala Glu Thr Cys Ala Val Cys Leu |  |
| 85 90 95                                                        |  |
| Asp Tyr Phe Cys Asn Lys Gln                                     |  |
| 100 103                                                         |  |

<210> 3919  
 <211> 68  
 <212> PRT  
 <213> Homo sapiens

<400> 3919

|                                                                 |  |
|-----------------------------------------------------------------|--|
| Arg Val Leu Thr Ala Ile Asn His Thr Leu Lys Glu Asn Leu Arg Lys |  |
| 1 5 10 15                                                       |  |
| Phe Tyr Lys Gly Lys Lys Asp Lys Pro Leu Asp Leu Arg Pro Lys Lys |  |
| 20 25 30                                                        |  |
| Thr Arg Ala Met Arg Arg Arg Leu Asn Met His Glu Glu Asn Leu Lys |  |
| 35 40 45                                                        |  |
| Thr Lys Lys Gln His Arg Lys Glu Arg Leu Tyr Pro Leu Arg Lys Tyr |  |
| 50 55 60                                                        |  |
| Ala Ala Lys Ala                                                 |  |
| 65 68                                                           |  |

<210> 3920  
 <211> 218  
 <212> PRT  
 <213> Homo sapiens

<400> 3920

|                                                                 |  |
|-----------------------------------------------------------------|--|
| Arg Cys Cys Arg Ser Phe Val Ala Pro Leu Gln Glu Lys Val Val Phe |  |
| 1 5 10 15                                                       |  |
| Gly Leu Phe Phe Leu Gly Ala Ile Leu Cys Leu Ser Phe Ser Trp Leu |  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Phe | His | Thr | Val | Tyr | Cys | His | Ser | Glu | Gly | Val | Ser | Arg | Leu | Phe | Ser |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Lys | Leu | Asp | Tyr | Ser | Gly | Ile | Ala | Leu | Leu | Ile | Met | Gly | Ser | Phe | Val |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Pro | Trp | Leu | Tyr | Tyr | Ser | Phe | Tyr | Cys | Asn | Pro | Gln | Pro | Cys | Phe | Ile |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Tyr | Leu | Ile | Val | Ile | Cys | Val | Leu | Gly | Ile | Ala | Ala | Ile | Ile | Val | Ser |  |
|     |     |     | 85  |     |     |     |     |     | 90  |     |     |     |     | 95  |     |  |
| Gln | Trp | Asp | Met | Phe | Ala | Thr | Pro | Gln | Tyr | Arg | Gly | Val | Arg | Ala | Gly |  |
|     |     | 100 |     |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |
| Val | Phe | Leu | Gly | Leu | Gly | Leu | Ser | Gly | Ile | Ile | Pro | Thr | Leu | His | Tyr |  |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |
| Val | Ile | Ser | Glu | Gly | Phe | Leu | Lys | Ala | Ala | Thr | Ile | Gly | Gln | Ile | Gly |  |
| 130 |     |     |     |     |     | 135 |     |     |     | 140 |     |     |     |     |     |  |
| Trp | Leu | Met | Leu | Met | Ala | Ser | Leu | Tyr | Ile | Thr | Gly | Ala | Ala | Leu | Tyr |  |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |  |
| Ala | Ala | Arg | Ile | Pro | Glu | Arg | Phe | Phe | Pro | Gly | Lys | Cys | Asp | Ile | Trp |  |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |  |
| Phe | His | Ser | His | Gln | Leu | Phe | His | Ile | Phe | Val | Val | Ala | Gly | Ala | Phe |  |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |  |
| Val | His | Phe | His | Gly | Val | Ser | Asn | Leu | Gln | Glu | Phe | Arg | Phe | Met | Ile |  |
|     |     | 195 |     |     |     | 200 |     |     |     |     |     | 205 |     |     |     |  |
| Gly | Gly | Gly | Cys | Ser | Glu | Glu | Asp | Ala | Leu |     |     |     |     |     |     |  |
| 210 |     |     |     |     |     | 215 |     |     | 218 |     |     |     |     |     |     |  |

&lt;210&gt; 3921

&lt;211&gt; 378

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3921

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|
| Leu | Glu | Arg | Asp | Gly | Cys | Gly | Gly | Glu | Glu | Gly | Gly | Ser | Val | Arg | Ser |  |
| 1   |     |     |     | 5   |     |     |     | 10  |     |     |     |     |     | 15  |     |  |
| Gly | Ala | Gly | Pro | Asp | Ser | Asp | Pro | Arg | Gly | Ala | Ser | Ser | Pro | Pro | Ala |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |  |
| Gly | His | Arg | Gly | Thr | Ala | Ala | Ser | Pro | Arg | Pro | Val | Ala | Ala | Pro | Ser |  |
|     | 35  |     |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |
| Arg | Thr | Pro | Ala | Pro | Pro | His | Thr | Arg | Ala | Arg | Ala | Ser | Pro | Gly | Leu |  |
| 50  |     |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |
| Pro | Ser | Gly | Pro | Ala | Trp | Arg | Arg | Val | Gln | Trp | Phe | Ser | Arg | Val | Ser |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |
| Gly | Gln | Val | Ser | Thr | Leu | Met | Lys | Ala | Thr | Val | Leu | Met | Arg | Gln | Pro |  |
|     |     |     | 85  |     |     |     |     |     | 90  |     |     |     |     | 95  |     |  |
| Gly | Arg | Val | Gln | Glu | Ile | Val | Gly | Ala | Leu | Arg | Lys | Gly | Gly | Gly | Asp |  |
|     |     | 100 |     |     |     |     | 105 |     |     |     |     |     | 110 |     |     |  |
| Arg | Leu | Gln | Val | Ile | Ser | Asp | Phe | Asp | Met | Thr | Leu | Ser | Arg | Phe | Ala |  |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |
| Tyr | Asn | Gly | Lys | Arg | Cys | Pro | Ser | Ser | Tyr | Asn | Ile | Leu | Asp | Asn | Ser |  |
| 130 |     |     |     |     |     | 135 |     |     |     | 140 |     |     |     |     |     |  |
| Lys | Ile | Ile | Ser | Glu | Glu | Cys | Arg | Lys | Glu | Leu | Thr | Ala | Leu | Leu | His |  |
| 145 |     |     |     |     | 150 |     |     |     | 155 |     |     |     |     |     | 160 |  |
| His | Tyr | Tyr | Pro | Ile | Glu | Ile | Asp | Pro | His | Arg | Thr | Val | Lys | Glu | Lys |  |
|     |     |     | 165 |     |     |     |     |     | 170 |     |     |     |     | 175 |     |  |
| Leu | Pro | His | Met | Val | Glu | Trp | Trp | Thr | Lys | Ala | His | Asn | Leu | Leu | Cys |  |
|     |     | 180 |     |     |     |     |     | 185 |     |     |     |     | 190 |     |     |  |
| Gln | Gln | Lys | Ile | Gln | Lys | Phe | Gln | Ile | Ala | Gln | Val | Val | Arg | Glu | Ser |  |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |  |
| Asn | Ala | Met | Leu | Arg | Glu | Gly | Tyr | Lys | Thr | Phe | Phe | Asn | Thr | Leu | Tyr |  |
| 210 |     |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |  |
| His | Asn | Asn | Ile | Pro | Leu | Phe | Ile | Phe | Ser | Ala | Gly | Ile | Gly | Asp | Ile |  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 225 |     | 230 |     | 235 |     | 240 |     |     |     |     |     |     |     |     |     |
| Leu | Glu | Glu | Ile | Ile | Arg | Gln | Met | Lys | Val | Phe | His | Pro | Asn | Ile | His |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |
| Ile | Val | Ser | Asn | Tyr | Met | Asp | Phe | Asn | Glu | Asp | Gly | Phe | Leu | Gln | Gly |
|     |     |     | 260 |     |     |     |     | 265 |     |     |     |     |     | 270 |     |
| Phe | Lys | Gly | Gln | Leu | Ile | His | Thr | Tyr | Asn | Lys | Asn | Ser | Ser | Ala | Cys |
|     |     | 275 |     |     |     |     | 280 |     |     |     |     | 285 |     |     |     |
| Glu | Asn | Cys | Gly | Tyr | Phe | Gln | Gln | Leu | Glu | Gly | Lys | Thr | Asn | Val | Ile |
|     | 290 |     |     |     |     | 295 |     |     |     | 300 |     |     |     |     |     |
| Leu | Leu | Gly | Asp | Ser | Ile | Gly | Asp | Leu | Thr | Met | Ala | Asp | Gly | Val | Pro |
| 305 |     |     |     |     | 310 |     |     |     | 315 |     |     |     |     | 320 |     |
| Gly | Val | Gln | Asn | Ile | Leu | Lys | Ile | Gly | Phe | Leu | Asn | Asp | Lys | Val | Glu |
|     |     |     | 325 |     |     |     |     | 330 |     |     |     |     |     | 335 |     |
| Glu | Arg | Arg | Glu | Arg | Tyr | Met | Asp | Ser | Tyr | Asp | Ile | Val | Leu | Glu | Lys |
|     |     |     | 340 |     |     |     | 345 |     |     |     |     |     | 350 |     |     |
| Asp | Glu | Thr | Leu | Asp | Val | Val | Asn | Gly | Leu | Leu | Gln | His | Ile | Leu | Cys |
|     |     | 355 |     |     |     | 360 |     |     |     |     | 365 |     |     |     |     |
| Gln | Gly | Val | Gln | Leu | Glu | Met | Gln | Gly | Pro |     |     |     |     |     |     |
|     | 370 |     |     |     |     | 375 |     | 378 |     |     |     |     |     |     |     |

<210> 3922  
 <211> 54  
 <212> PRT  
 <213> Homo sapiens

<400> 3922

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gly | Lys | Ile | Tyr | Gln | Arg | Ala | Phe | Gly | Gly | His | Ser | Leu | Lys | Phe | Gly |
| 1   |     |     |     | 5   |     |     |     | 10  |     |     |     |     | 15  |     |     |
| Lys | Gly | Val | Gln | Ala | His | Gly | Cys | Cys | Cys | Val | Ala | Asp | Arg | Thr | Gly |
|     |     |     | 20  |     |     |     | 25  |     |     |     |     | 30  |     |     |     |
| His | Ser | Ile | Leu | His | Thr | Ser | Tyr | Gly | Arg | Glu | Arg | Pro | Ala | Pro | Val |
|     |     | 35  |     |     |     | 40  |     |     |     |     | 45  |     |     |     |     |
| His | Leu | Arg | Gln | Asp | Thr |     |     |     |     |     |     |     |     |     |     |
|     | 50  |     |     |     | 54  |     |     |     |     |     |     |     |     |     |     |

<210> 3923  
 <211> 1085  
 <212> PRT  
 <213> Homo sapiens

<400> 3923

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | His | Ala | Thr | His | Ala | Tyr | Ala | Lys | Leu | Gly | Thr | Arg | Arg | Arg | His |
| 1   |     |     |     | 5   |     |     |     | 10  |     |     |     |     | 15  |     |     |
| Arg | Glu | Val | Thr | Val | Phe | Val | Pro | Thr | Trp | Gln | Leu | Lys | Lys | Asn | Arg |
|     |     |     | 20  |     |     |     | 25  |     |     |     |     | 30  |     |     |     |
| Arg | Val | Arg | Glu | Ser | His | Phe | Leu | Thr | Lys | Leu | His | Ser | Leu | Lys | Met |
|     |     | 35  |     |     |     | 40  |     |     |     |     | 45  |     |     |     |     |
| Leu | Ser | Ile | Thr | Pro | Ser | Gln | Leu | Glu | Asn | Gly | Lys | Lys | Ile | Thr | Thr |
|     | 50  |     |     |     | 55  |     |     |     | 60  |     |     |     |     |     |     |
| Tyr | Asp | Tyr | Arg | Phe | Met | Val | Lys | Leu | Ala | Glu | Glu | Thr | Asp | Gly | Ile |
| 65  |     |     |     | 70  |     |     |     | 75  |     |     |     |     | 80  |     |     |
| Ile | Val | Thr | Asn | Glu | Gln | Ile | His | Ile | Leu | Met | Asn | Ser | Ser | Lys | Lys |
|     |     |     | 85  |     |     |     | 90  |     |     |     |     |     | 95  |     |     |
| Leu | Met | Val | Lys | Asp | Arg | Leu | Leu | Pro | Phe | Thr | Phe | Ala | Gly | Asn | Leu |
|     |     | 100 |     |     |     | 105 |     |     |     |     |     | 110 |     |     |     |
| Phe | Met | Val | Pro | Asp | Asp | Pro | Leu | Gly | Arg | Asp | Gly | Pro | Thr | Leu | Asp |
|     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |     |
| Glu | Phe | Leu | Lys | Lys | Pro | Asn | Arg | Leu | Asp | Thr | Asp | Ile | Gly | Asn | Phe |

|                         |                     |                     |
|-------------------------|---------------------|---------------------|
| 130                     | 135                 | 140                 |
| Leu Lys Val Trp Lys Thr | Leu Pro Pro Ser Ser | Ala Ser Val Thr Glu |
| 145                     | 150                 | 155                 |
| Leu Ser Asp Asp Ala Asp | Ser Gly Pro Leu Glu | Ser Leu Pro Asn Met |
| 165                     | 170                 | 175                 |
| Glu Glu Val Arg Glu Glu | Lys Glu Glu Arg Gln | Asp Glu Glu Gln Arg |
| 180                     | 185                 | 190                 |
| Gln Gly Gln Gly Thr Gln | Lys Ala Glu Glu Asp | Asp Leu Asp Ser     |
| 195                     | 200                 | 205                 |
| Ser Leu Ala Ser Val Phe | Arg Val Glu Cys Pro | Ser Leu Ser Glu Glu |
| 210                     | 215                 | 220                 |
| Ile Leu Arg Cys Leu Ser | Leu His Asp Pro Pro | Asp Gly Ala Leu Asp |
| 225                     | 230                 | 235                 |
| Ile Asp Leu Leu Pro Gly | Ala Ala Ser Pro Tyr | Leu Gly Ile Pro Trp |
| 245                     | 250                 | 255                 |
| Asp Gly Lys Ala Pro Cys | Gln Gln Val Leu Ala | His Leu Ala Gln Leu |
| 260                     | 265                 | 270                 |
| Thr Ile Pro Ser Asn Phe | Thr Ala Leu Ser Phe | Phe Met Gly Phe Met |
| 275                     | 280                 | 285                 |
| Asp Ser His Arg Asp Ala | Ile Pro Asp Tyr Glu | Ala Leu Val Gly Pro |
| 290                     | 295                 | 300                 |
| Leu His Ser Leu Leu Lys | Gln Lys Pro Asp Trp | Gln Trp Asp Gln Glu |
| 305                     | 310                 | 315                 |
| His Glu Glu Ala Phe Leu | Ala Leu Lys Arg Ala | Leu Val Ser Ala Leu |
| 325                     | 330                 | 335                 |
| Cys Leu Met Ala Pro Asn | Ser Gln Leu Pro Phe | Arg Leu Glu Val Thr |
| 340                     | 345                 | 350                 |
| Val Ser His Val Ala Leu | Thr Ala Ile Leu His | Gln Glu His Ser Gly |
| 355                     | 360                 | 365                 |
| Arg Lys His Pro Ile Ala | Tyr Thr Ser Lys Pro | Leu Leu Pro Asp Glu |
| 370                     | 375                 | 380                 |
| Glu Ser Gln Gly Pro Gln | Ser Gly Gly Asp Ser | Pro Tyr Ala Val Ala |
| 385                     | 390                 | 395                 |
| Trp Ala Leu Lys His Phe | Ser Arg Cys Ile Gly | Asp Thr Pro Val Val |
| 405                     | 410                 | 415                 |
| Leu Asp Leu Ser Tyr Ala | Ser Arg Thr Thr Ala | Asp Pro Glu Val Arg |
| 420                     | 425                 | 430                 |
| Glu Gly Arg Arg Val Ser | Lys Ala Trp Leu Ile | Arg Trp Ser Leu Leu |
| 435                     | 440                 | 445                 |
| Val Gln Asp Lys Gly Lys | Arg Ala Leu Glu Leu | Ala Leu Leu Gln Gly |
| 450                     | 455                 | 460                 |
| Leu Leu Gly Glu Asn Arg | Leu Leu Thr Pro Ala | Ala Ser Met Pro Arg |
| 465                     | 470                 | 475                 |
| Phe Phe Gln Val Leu Pro | Pro Phe Ser Asp Leu | Ser Thr Phe Val Cys |
| 485                     | 490                 | 495                 |
| Ile His Met Ser Gly Tyr | Cys Phe Tyr Arg Glu | Asp Glu Trp Cys Ala |
| 500                     | 505                 | 510                 |
| Gly Phe Gly Leu Tyr Val | Leu Ser Pro Thr Ser | Pro Pro Val Ser Leu |
| 515                     | 520                 | 525                 |
| Ser Phe Ser Cys Ser Pro | Tyr Thr Pro Thr Tyr | Ala His Leu Ala Ala |
| 530                     | 535                 | 540                 |
| Val Ala Cys Gly Leu Glu | Arg Phe Gly Gln Ser | Pro Leu Pro Val Val |
| 545                     | 550                 | 555                 |
| Phe Leu Thr His Cys Asn | Trp Ile Phe Ser Leu | Leu Trp Glu Leu Leu |
| 565                     | 570                 | 575                 |
| Pro Leu Trp Arg Ala Arg | Gly Phe Leu Ser Ser | Asp Gly Ala Pro Leu |
| 580                     | 585                 | 590                 |
| Pro His Pro Ser Leu Leu | Ser Tyr Ile Ile Ser | Leu Thr Ser Gly Leu |
| 595                     | 600                 | 605                 |
| Ser Ser Leu Pro Phe Ile | Tyr Arg Thr Ser Tyr | Arg Gly Ser Leu Phe |
| 610                     | 615                 | 620                 |
| Ala Val Thr Val Asp Thr | Leu Ala Lys Gln Gly | Ala Gln Gly Gly Gly |
| 625                     | 630                 | 635                 |
| Gln Trp Trp Ser Leu Pro | Lys Asp Val Pro Ala | Pro Thr Val Ser Pro |



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<210> 3924
<211> 608
<212> PRT
<213> Homo sapiens
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<400> 3924

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Gly | Ser | Val | Thr | Val | Arg | Tyr | Phe | Cys | Tyr | Gly | Cys | Leu | Phe | Thr |
| 1   |     |     |     | 5   |     |     |     | 10  |     |     |     |     | 15  |     |     |
| Ser | Ala | Thr | Trp | Thr | Val | Leu | Leu | Phe | Val | Tyr | Phe | Asn | Phe | Ser | Glu |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |
| Val | Thr | Gln | Pro | Leu | Lys | Asn | Val | Pro | Val | Lys | Gly | Ser | Gly | Pro | His |
|     |     | 35  |     |     |     | 40  |     |     |     |     |     | 45  |     |     |     |
| Gly | Pro | Ser | Pro | Lys | Lys | Phe | Tyr | Pro | Arg | Phe | Thr | Arg | Gly | Pro | Ser |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |
| Arg | Val | Leu | Glu | Pro | Gln | Phe | Lys | Ala | Asn | Lys | Ile | Asp | Asp | Val | Ile |
|     | 65  |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |
| Asp | Ser | Arg | Val | Glu | Asp | Pro | Glu | Glu | Gly | His | Leu | Lys | Phe | Ser | Ser |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Glu | Leu | Gly | Met | Ile | Phe | Asn | Glu | Arg | Asp | Gln | Glu | Leu | Arg | Asp | Leu |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Gly | Tyr | Gln | Lys | His | Ala | Phe | Asn | Met | Leu | Ile | Ser | Asp | Arg | Leu | Gly |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Tyr | His | Arg | Asp | Val | Pro | Asp | Thr | Arg | Asn | Ala | Ala | Cys | Lys | Glu | Lys |
|     | 130 |     |     |     |     | 135 |     |     |     |     |     | 140 |     |     |     |
| Phe | Tyr | Pro | Pro | Asp | Leu | Pro | Ala | Ala | Ser | Val | Val | Ile | Cys | Phe | Tyr |
|     | 145 |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Asn | Glu | Ala | Phe | Ser | Ala | Leu | Leu | Arg | Thr | Val | His | Ser | Val | Ile | Asp |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Arg | Thr | Pro | Ala | His | Leu | Leu | His | Glu | Ile | Ile | Leu | Val | Asp | Asp | Asp |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Ser | Asp | Phe | Asp | Asp | Leu | Lys | Gly | Glu | Leu | Asp | Glu | Tyr | Val | Gln | Lys |
|     | 195 |     |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Tyr | Leu | Pro | Gly | Lys | Ile | Lys | Val | Ile | Arg | Asn | Thr | Lys | Arg | Glu | Gly |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| Leu | Ile | Arg | Gly | Arg | Met | Ile | Gly | Ala | Ala | His | Ala | Thr | Gly | Glu | Val |
|     | 225 |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |
| Leu | Val | Phe | Leu | Asp | Ser | His | Cys | Glu | Val | Asn | Val | Met | Trp | Leu | Gln |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |
| Pro | Leu | Leu | Ala | Ala | Ile | Arg | Glu | Asp | Arg | His | Thr | Val | Gly | Cys | Pro |
|     |     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |
| Val | Ile | Asp | Ile | Ile | Ser | Ala | Asp | Thr | Leu | Ala | Tyr | Ser | Ser | Ser | Pro |
|     | 275 |     |     |     |     |     | 280 |     |     |     |     | 285 |     |     |     |
| Val | Val | Arg | Gly | Gly | Phe | Asn | Trp | Gly | Leu | His | Phe | Lys | Trp | Asp | Leu |
|     | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |
| Val | Pro | Leu | Ser | Glu | Leu | Gly | Arg | Ala | Glu | Gly | Ala | Thr | Ala | Pro | Ile |
|     | 305 |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |
| Lys | Ser | Pro | Thr | Met | Ala | Gly | Gly | Leu | Phe | Ala | Met | Asn | Arg | Gln | Tyr |
|     |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |
| Phe | His | Glu | Leu | Gly | Gln | Tyr | Asp | Ser | Gly | Met | Asp | Ile | Trp | Gly | Gly |
|     |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |
| Glu | Asn | Leu | Glu | Ile | Ser | Phe | Arg | Ile | Trp | Met | Cys | Gly | Gly | Lys | Leu |
|     | 355 |     |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |
| Phe | Ile | Ile | Pro | Cys | Ser | Arg | Val | Gly | His | Ile | Phe | Arg | Lys | Arg | Arg |
|     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |
| Pro | Tyr | Gly | Ser | Pro | Glu | Gly | Gln | Asp | Thr | Met | Thr | His | Asn | Ser | Leu |
|     | 385 |     |     |     | 390 |     |     |     |     | 395 |     |     |     |     | 400 |
| Arg | Leu | Ala | His | Val | Trp | Leu | Asp | Glu | Tyr | Lys | Glu | Gln | Tyr | Phe | Ser |
|     |     |     |     | 405 |     |     |     |     | 410 |     |     |     |     | 415 |     |
| Leu | Arg | Pro | Asp | Leu | Lys | Thr | Lys | Ser | Tyr | Gly | Asn | Ile | Ser | Glu | Arg |
|     |     |     | 420 |     |     |     |     | 425 |     |     |     |     | 430 |     |     |
| Val | Glu | Leu | Arg | Lys | Lys | Leu | Gly | Cys | Lys | Ser | Phe | Lys | Trp | Tyr | Leu |
|     | 435 |     |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |
| Asp | Asn | Val | Tyr | Pro | Glu | Met | Gln | Ile | Ser | Gly | Ser | His | Ala | Lys | Pro |
|     | 450 |     |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |
| Gln | Gln | Pro | Ile | Phe | Val | Asn | Arg | Gly | Pro | Lys | Arg | Pro | Lys | Val | Leu |
|     | 465 |     |     |     | 470 |     |     |     | 475 |     |     |     |     |     | 480 |
| Gln | Arg | Gly | Arg | Leu | Tyr | His | Leu | Gln | Thr | Asn | Lys | Cys | Leu | Val | Ala |
|     |     |     |     | 485 |     |     |     |     | 490 |     |     |     |     | 495 |     |
| Gln | Gly | Arg | Pro | Ser | Gln | Lys | Gly | Gly | Leu | Val | Val | Leu | Lys | Ala | Cys |

|                                                                 |     |     |
|-----------------------------------------------------------------|-----|-----|
| 500                                                             | 505 | 510 |
| Asp Tyr Ser Asp Pro Asn Gln Ile Trp Ile Tyr Asn Glu Glu His Glu |     |     |
| 515                                                             | 520 | 525 |
| Leu Val Leu Asn Ser Leu Leu Cys Leu Asp Met Ser Glu Thr Arg Ser |     |     |
| 530                                                             | 535 | 540 |
| Ser Asp Pro Pro Arg Leu Met Lys Cys His Gly Ser Gly Gly Ser Gln |     |     |
| 545                                                             | 550 | 555 |
| Gln Trp Thr Phe Gly Lys Asn Asn Arg Leu Tyr Gln Val Ser Val Gly |     |     |
| 565                                                             | 570 | 575 |
| Gln Cys Leu Arg Ala Val Asp Pro Leu Gly Gln Lys Gly Ser Val Ala |     |     |
| 580                                                             | 585 | 590 |
| Met Ala Ile Cys Asp Gly Ser Ser Ser Gln Gln Trp His Leu Glu Gly |     |     |
| 595                                                             | 600 | 605 |
|                                                                 |     | 608 |

<210> 3925  
 <211> 829  
 <212> PRT  
 <213> Homo sapiens

<400> 3925

|                                                                 |     |     |
|-----------------------------------------------------------------|-----|-----|
| Val Arg Trp Asn Ser Lys Thr Glu Cys Tyr Leu Ser Ile Gln Thr Gln |     |     |
| 1                                                               | 5   | 10  |
| Glu Asn Phe Pro Ala Asn Leu Asn Glu Leu Val Asn Cys Ile Val Ile |     |     |
| 20                                                              | 25  | 30  |
| Ser Ser Leu Val Thr Thr Gln Arg Lys Leu Lys Ala Met Ser Leu Leu |     |     |
| 35                                                              | 40  | 45  |
| Gly Ser Arg Asn Gln Leu Ala Arg Ala Val Leu Asn Pro Asn Pro Met |     |     |
| 50                                                              | 55  | 60  |
| Asp Phe Cys Thr Lys Asp Leu Leu Thr Thr Thr Ser Glu Arg Ile Ile |     |     |
| 65                                                              | 70  | 75  |
| Ala Tyr Leu Arg Asp Phe Asn Glu Asp Gln Lys Lys Ala Ile Glu Thr |     |     |
| 85                                                              | 90  | 95  |
| Ala Tyr Ala Met Val Lys His Ser Pro Ser Val Ala Lys Ile Cys Leu |     |     |
| 100                                                             | 105 | 110 |
| Ile His Gly Pro Pro Gly Thr Gly Lys Ser Lys Thr Ile Val Gly Leu |     |     |
| 115                                                             | 120 | 125 |
| Leu Tyr Arg Leu Leu Thr Glu Asn Gln Arg Lys Gly His Ser Asp Glu |     |     |
| 130                                                             | 135 | 140 |
| Asn Ser Asn Ala Lys Ile Lys Gln Asn Arg Val Leu Val Cys Ala Pro |     |     |
| 145                                                             | 150 | 155 |
| Ser Asn Ala Ala Val Asp Glu Leu Met Lys Lys Ile Ile Leu Glu Phe |     |     |
| 165                                                             | 170 | 175 |
| Lys Glu Lys Cys Lys Asp Lys Lys Asn Pro Leu Gly Asn Cys Gly Asp |     |     |
| 180                                                             | 185 | 190 |
| Ile Asn Leu Val Arg Leu Gly Pro Glu Lys Ser Ile Asn Ser Glu Val |     |     |
| 195                                                             | 200 | 205 |
| Leu Lys Phe Ser Leu Asp Ser Gln Val Asn His Arg Met Lys Lys Glu |     |     |
| 210                                                             | 215 | 220 |
| Leu Pro Ser His Val Gln Ala Met His Lys Arg Lys Glu Phe Leu Asp |     |     |
| 225                                                             | 230 | 235 |
| Tyr Gln Leu Asp Glu Leu Ser Arg Gln Arg Ala Leu Cys Arg Gly Gly |     |     |
| 245                                                             | 250 | 255 |
| Arg Glu Ile Gln Arg Gln Glu Leu Asp Glu Asn Ile Ser Lys Val Ser |     |     |
| 260                                                             | 265 | 270 |
| Lys Glu Arg Gln Glu Leu Ala Ser Lys Ile Lys Glu Val Gln Gly Arg |     |     |
| 275                                                             | 280 | 285 |
| Pro Gln Lys Thr Gln Ser Ile Ile Ile Leu Glu Ser His Ile Ile Cys |     |     |
| 290                                                             | 295 | 300 |
| Cys Thr Leu Ser Thr Ser Gly Gly Leu Leu Leu Glu Ser Ala Phe Arg |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |
| Gly | Gln | Gly | Gly | Val | Pro | Phe | Ser | Cys | Val | Ile | Val | Asp | Glu | Ala | Gly |
|     |     |     |     | 325 |     |     |     |     | 330 |     |     |     |     | 335 |     |
| Gln | Ser | Cys | Glu | Ile | Glu | Thr | Leu | Thr | Pro | Leu | Ile | His | Arg | Cys | Asn |
|     |     |     | 340 |     |     |     |     | 345 |     |     |     |     | 350 |     |     |
| Lys | Leu | Ile | Leu | Val | Gly | Asp | Pro | Lys | Gln | Leu | Pro | Pro | Thr | Val | Ile |
|     |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |
| Ser | Met | Lys | Ala | Gln | Glu | Tyr | Gly | Tyr | Asp | Gln | Ser | Met | Met | Ala | Arg |
|     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |
| Phe | Cys | Arg | Leu | Leu | Glu | Glu | Asn | Val | Glu | His | Asn | Met | Ile | Ser | Arg |
| 385 |     |     |     | 390 |     |     |     |     | 395 |     |     |     |     |     | 400 |
| Leu | Pro | Ile | Leu | Gln | Leu | Thr | Val | Gln | Tyr | Arg | Met | His | Pro | Asp | Ile |
|     |     |     | 405 |     |     |     |     | 410 |     |     |     |     |     | 415 |     |
| Cys | Leu | Phe | Pro | Ser | Asn | Tyr | Val | Tyr | Asn | Arg | Asn | Leu | Lys | Thr | Asn |
|     |     | 420 |     |     |     |     |     | 425 |     |     |     | 430 |     |     |     |
| Arg | Gln | Thr | Glu | Ala | Ile | Arg | Cys | Ser | Ser | Asp | Trp | Pro | Phe | Gln | Pro |
|     | 435 |     |     |     |     | 440 |     |     |     | 445 |     |     |     |     |     |
| Tyr | Leu | Val | Phe | Asp | Val | Gly | Asp | Gly | Ser | Glu | Arg | Arg | Asp | Asn | Asp |
|     | 450 |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |     |
| Ser | Tyr | Ile | Asn | Val | Gln | Glu | Ile | Lys | Leu | Val | Met | Glu | Ile | Ile | Lys |
| 465 |     |     |     | 470 |     |     |     |     | 475 |     |     |     |     |     | 480 |
| Leu | Ile | Lys | Asp | Lys | Arg | Lys | Asp | Val | Ser | Phe | Arg | Asn | Ile | Gly | Ile |
|     |     |     | 485 |     |     |     |     | 490 |     |     |     |     |     | 495 |     |
| Ile | Thr | His | Tyr | Lys | Ala | Gln | Lys | Thr | Met | Ile | Gln | Lys | Asp | Leu | Asp |
|     |     | 500 |     |     |     |     |     | 505 |     |     |     |     | 510 |     |     |
| Lys | Glu | Phe | Asp | Arg | Lys | Gly | Pro | Ala | Glu | Val | Asp | Thr | Val | Asp | Ala |
|     | 515 |     |     |     |     | 520 |     |     |     |     | 525 |     |     |     |     |
| Phe | Gln | Gly | Arg | Gln | Lys | Asp | Cys | Val | Ile | Val | Thr | Cys | Val | Arg | Ala |
|     | 530 |     |     |     |     | 535 |     |     |     |     | 540 |     |     |     |     |
| Asn | Ser | Ile | Gln | Gly | Ser | Ile | Gly | Phe | Leu | Ala | Ser | Leu | Gln | Arg | Leu |
| 545 |     |     |     |     | 550 |     |     |     | 555 |     |     |     |     |     | 560 |
| Asn | Val | Thr | Ile | Thr | Arg | Ala | Lys | Tyr | Ser | Leu | Phe | Ile | Leu | Gly | His |
|     |     |     | 565 |     |     |     |     | 570 |     |     |     |     |     | 575 |     |
| Leu | Arg | Thr | Leu | Met | Glu | Asn | Gln | His | Trp | Asn | Gln | Leu | Ile | Gln | Asp |
|     |     | 580 |     |     |     |     |     | 585 |     |     |     |     | 590 |     |     |
| Ala | Gln | Lys | Arg | Gly | Ala | Ile | Ile | Lys | Thr | Cys | Asp | Lys | Asn | Tyr | Arg |
|     | 595 |     |     |     |     |     | 600 |     |     |     |     | 605 |     |     |     |
| His | Asp | Ala | Val | Lys | Ile | Leu | Lys | Leu | Lys | Pro | Val | Leu | Gln | Arg | Ser |
|     | 610 |     |     |     |     | 615 |     |     |     |     | 620 |     |     |     |     |
| Leu | Thr | His | Pro | Pro | Thr | Ile | Ala | Pro | Glu | Gly | Ser | Arg | Pro | Gln | Gly |
| 625 |     |     |     |     | 630 |     |     |     | 635 |     |     |     |     |     | 640 |
| Gly | Leu | Pro | Ser | Ser | Lys | Leu | Asp | Ser | Gly | Phe | Ala | Lys | Thr | Ser | Val |
|     |     |     | 645 |     |     |     |     | 650 |     |     |     |     |     | 655 |     |
| Ala | Ala | Ser | Leu | Tyr | His | Thr | Pro | Ser | Asp | Ser | Lys | Glu | Ile | Thr | Leu |
|     |     | 660 |     |     |     |     |     | 665 |     |     |     |     | 670 |     |     |
| Thr | Val | Thr | Ser | Lys | Asp | Pro | Glu | Arg | Pro | Pro | Val | His | Asp | Gln | Leu |
|     | 675 |     |     |     |     |     | 680 |     |     |     |     | 685 |     |     |     |
| Gln | Asp | Pro | Arg | Leu | Leu | Lys | Arg | Met | Gly | Ile | Glu | Val | Lys | Gly | Gly |
|     | 690 |     |     |     |     | 695 |     |     |     |     | 700 |     |     |     |     |
| Ile | Phe | Leu | Trp | Asp | Pro | Gln | Pro | Ser | Ser | Pro | Gln | His | Pro | Gly | Ala |
| 705 |     |     |     |     | 710 |     |     |     |     | 715 |     |     |     |     | 720 |
| Thr | Pro | Pro | Thr | Gly | Glu | Pro | Gly | Phe | Pro | Val | Val | His | Gln | Asp | Leu |
|     |     |     | 725 |     |     |     |     | 730 |     |     |     |     |     | 735 |     |
| Ser | His | Val | Gln | Gln | Pro | Ala | Ala | Val | Val | Ala | Ala | Leu | Ser | Ser | His |
|     |     | 740 |     |     |     |     |     | 745 |     |     |     |     | 750 |     |     |
| Lys | Pro | Pro | Val | Arg | Gly | Glu | Pro | Pro | Ala | Ala | Ser | Pro | Glu | Ala | Ser |
|     | 755 |     |     |     |     |     | 760 |     |     |     |     | 765 |     |     |     |
| Thr | Cys | Gln | Ser | Lys | Cys | Asp | Asp | Pro | Glu | Glu | Glu | Leu | Cys | His | Arg |
|     | 770 |     |     |     |     | 775 |     |     |     |     | 780 |     |     |     |     |
| Arg | Glu | Ala | Arg | Ala | Phe | Ser | Glu | Gly | Glu | Gln | Glu | Lys | Cys | Gly | Ser |
| 785 |     |     |     |     | 790 |     |     |     | 795 |     |     |     |     |     | 800 |
| Glu | Thr | His | His | Thr | Arg | Arg | Asn | Ser | Arg | Trp | Asp | Lys | Arg | Thr | Leu |
|     |     |     | 805 |     |     |     |     | 810 |     |     |     |     |     | 815 |     |
| Glu | Gln | Glu | Asp | Ser | Ser | Ser | Lys | Lys | Arg | Lys | Leu | Leu |     |     |     |

820

825

829

<210> 3926  
 <211> 62  
 <212> PRT  
 <213> Homo sapiens

<400> 3926  
 Met Pro Arg Glu Asp Arg Ala Thr Trp Lys Ser Asn Tyr Phe Leu Lys  
 1 5 10 15  
 Ile Ile Gln Leu Leu Asp Asp Tyr Pro Lys Arg Phe Ile Val Gly Ala  
 20 25 30  
 Asn Asn Val Gly Ser Lys Gln Met Gln Gln Ile Arg Met Ser Leu Arg  
 35 40 45  
 Gly Lys Ala Val Val Leu Met Gly Lys Asn Thr Met Met Arg  
 50 55 60 62

<210> 3927  
 <211> 183  
 <212> PRT  
 <213> Homo sapiens

<400> 3927  
 Ala His Leu Leu Met Leu Asn Leu Ala Leu Thr Asp Leu Leu Tyr Leu  
 1 5 10 15  
 Thr Ser Leu Pro Phe Leu Ile His Tyr Tyr Ala Ser Gly Glu Asn Trp  
 20 25 30  
 Ile Phe Gly Asp Phe Met Cys Lys Phe Ile Arg Phe Ser Phe His Phe  
 35 40 45  
 Asn Leu Tyr Ser Ser Ile Leu Phe Leu Thr Cys Phe Ser Ile Phe Arg  
 50 55 60  
 Tyr Cys Val Ile Ile His Pro Met Ser Cys Phe Ser Ile His Lys Thr  
 65 70 75 80  
 Arg Cys Ala Val Val Ala Cys Ala Val Val Trp Ile Ile Ser Leu Val  
 85 90 95  
 Ala Val Ile Pro Met Thr Phe Leu Ile Thr Ser Thr Asn Arg Thr Asn  
 100 105 110  
 Arg Ser Ala Cys Leu Asp Leu Thr Ser Ser Asp Glu Leu Asn Thr Ile  
 115 120 125  
 Lys Trp Tyr Asn Leu Ile Leu Thr Ala Leu Leu Cys Leu Pro Leu Val  
 130 135 140  
 Ile Val Thr Leu Cys Tyr Thr Thr Ile Ile His Thr Leu Thr His Gly  
 145 150 155 160  
 His Ala Asn Asp Ser Cys Leu Lys Gln Lys Ala Arg Arg Leu Thr Ile  
 165 170 175  
 Leu Leu Leu  
 179

<210> 3928  
 <211> 505  
 <212> PRT  
 <213> Homo sapiens

<400> 3928  
 Gly Glu Glu Ala Val Gly Gly Gly Ala Glu Gly Gly Gly Phe Gly Val

|                                                                 |     |     |     |
|-----------------------------------------------------------------|-----|-----|-----|
| 1                                                               | 5   | 10  | 15  |
| Gly Ala Gln Gly Arg Ala Gly Gly Arg Gly Val Glu Ala Gly Arg Met |     |     |     |
| 20                                                              | 25  | 30  |     |
| Arg Leu Ser Lys Thr Leu Val Asp Met Asp Met Ala Asp Tyr Ser Ala |     |     |     |
| 35                                                              | 40  | 45  |     |
| Ala Leu Asp Pro Ala Tyr Thr Thr Leu Glu Phe Glu Asn Val Gln Val |     |     |     |
| 50                                                              | 55  | 60  |     |
| Leu Thr Met Gly Asn Asp Thr Ser Pro Ser Glu Gly Thr Asn Leu Asn |     |     |     |
| 65                                                              | 70  | 75  | 80  |
| Ala Pro Asn Ser Leu Gly Val Ser Ala Leu Cys Ala Ile Cys Gly Asp |     |     |     |
| 85                                                              | 90  | 95  |     |
| Arg Ala Thr Gly Lys His Tyr Gly Ala Ser Ser Cys Asp Gly Cys Lys |     |     |     |
| 100                                                             | 105 | 110 |     |
| Gly Phe Phe Arg Arg Ser Val Arg Lys Asn His Met Tyr Ser Cys Arg |     |     |     |
| 115                                                             | 120 | 125 |     |
| Phe Ser Arg Gln Cys Val Val Asp Lys Asp Lys Arg Asn Gln Cys Arg |     |     |     |
| 130                                                             | 135 | 140 |     |
| Tyr Cys Arg Leu Lys Lys Cys Phe Arg Ala Gly Met Lys Lys Glu Ala |     |     |     |
| 145                                                             | 150 | 155 | 160 |
| Val Gln Asn Glu Arg Asp Arg Ile Ser Thr Arg Arg Ser Ser Tyr Glu |     |     |     |
| 165                                                             | 170 | 175 |     |
| Asp Ser Ser Leu Pro Ser Ile Asn Ala Leu Leu Gln Ala Glu Val Leu |     |     |     |
| 180                                                             | 185 | 190 |     |
| Ser Arg Gln Ile Thr Ser Pro Val Ser Gly Ile Asn Gly Asp Ile Arg |     |     |     |
| 195                                                             | 200 | 205 |     |
| Ala Lys Lys Ile Ala Ser Ile Ala Asp Val Cys Glu Ser Met Lys Glu |     |     |     |
| 210                                                             | 215 | 220 |     |
| Gln Leu Leu Val Leu Val Glu Trp Ala Lys Tyr Ile Pro Gly Phe Cys |     |     |     |
| 225                                                             | 230 | 235 | 240 |
| Glu Leu Pro Leu Asp Asp Gln Gly Ala Leu Leu Arg Ala His Ala Gly |     |     |     |
| 245                                                             | 250 | 255 |     |
| Glu His Leu Leu Leu Gly Ala Thr Lys Arg Ser Met Val Phe Lys Asp |     |     |     |
| 260                                                             | 265 | 270 |     |
| Val Leu Leu Leu Gly Asn Asp Tyr Ile Val Pro Arg His Cys Pro Glu |     |     |     |
| 275                                                             | 280 | 285 |     |
| Leu Ala Glu Met Ser Arg Val Ser Ile Arg Ile Leu Asp Glu Leu Val |     |     |     |
| 290                                                             | 295 | 300 |     |
| Leu Pro Phe Gln Glu Leu Gln Ile Asp Asp Asn Glu Tyr Ala Tyr Leu |     |     |     |
| 305                                                             | 310 | 315 | 320 |
| Lys Ala Ile Ile Phe Phe Asp Pro Asp Ala Lys Gly Leu Ser Asp Pro |     |     |     |
| 325                                                             | 330 | 335 |     |
| Gly Lys Ile Lys Arg Leu Arg Ser Gln Val Gln Val Ser Leu Glu Asp |     |     |     |
| 340                                                             | 345 | 350 |     |
| Tyr Ile Asn Asp Arg Gln Tyr Asp Ser Arg Gly Arg Phe Gly Glu Leu |     |     |     |
| 355                                                             | 360 | 365 |     |
| Leu Leu Leu Leu Pro Thr Leu Gln Ser Ile Thr Trp Gln Met Ile Glu |     |     |     |
| 370                                                             | 375 | 380 |     |
| Gln Ile Gln Phe Ile Lys Leu Phe Gly Met Ala Lys Ile Asp Asn Leu |     |     |     |
| 385                                                             | 390 | 395 | 400 |
| Leu Gln Glu Met Leu Leu Gly Gly Ser Pro Ser Asp Ala Pro His Ala |     |     |     |
| 405                                                             | 410 | 415 |     |
| His His Pro Leu His Pro His Leu Met Gln Glu His Met Gly Thr Asn |     |     |     |
| 420                                                             | 425 | 430 |     |
| Val Ile Val Ala Asn Thr Met Pro Thr His Leu Ser Asn Gly Gln Met |     |     |     |
| 435                                                             | 440 | 445 |     |
| Cys Glu Trp Pro Arg Pro Arg Gly Gln Ala Ala Thr Pro Glu Thr Pro |     |     |     |
| 450                                                             | 455 | 460 |     |
| Gln Pro Ser Pro Pro Gly Ala Ser Gly Ser Glu Pro Tyr Lys Leu Leu |     |     |     |
| 465                                                             | 470 | 475 | 480 |
| Pro Gly Ala Val Ala Thr Ile Val Lys Pro Leu Ser Ala Ile Pro Gln |     |     |     |
| 485                                                             | 490 | 495 |     |
| Pro Thr Ile Thr Lys Gln Glu Val Ile                             |     |     |     |
| 500                                                             | 505 |     |     |



<210> 3929  
 <211> 927  
 <212> PRT  
 <213> Homo sapiens

<400> 3929  
 Arg Val Leu Ser Leu Glu Ser Pro Leu Glu Lys Asp Pro Arg Val Leu  
 1 5 10 15  
 Gly Ala Gln Ser Val Pro Arg Gly Arg Ala Leu Lys Gly Leu Ser Pro  
 20 25 30  
 Leu Gly Leu Asp Ser Ala Phe Arg Leu Phe Pro Asp Pro Arg Ala Gly  
 35 40 45  
 Pro Trp Asn Thr Ala Val Leu Ser Ser Gly Met Glu Pro Glu Thr Ala  
 50 55 60  
 Leu Trp Gly Pro Asp Leu Gln Gly Pro Glu Gln Ser Pro Asn Asp Ala  
 65 70 75 80  
 His Arg Gly Ala Glu Ser Glu Asn Glu Glu Glu Ser Pro Arg Gln Glu  
 85 90 95  
 Ser Ser Gly Glu Glu Ile Ile Met Gly Asp Pro Ala Gln Ser Pro Glu  
 100 105 110  
 Ser Lys Asp Ser Thr Glu Met Ser Leu Glu Arg Ser Ser Gln Asp Pro  
 115 120 125  
 Ser Val Pro Gln Asn Pro Pro Thr Pro Leu Gly His Ser Asn Pro Leu  
 130 135 140  
 Asp His Gln Ile Pro Leu Asp Pro Pro Ala Pro Glu Val Val Pro Thr  
 145 150 155 160  
 Pro Ser Asp Trp Thr Lys Ala Cys Glu Ala Ser Trp Gln Trp Gly Ala  
 165 170 175  
 Leu Thr Thr Trp Asn Ser Pro Pro Val Val Pro Ala Asn Glu Pro Ser  
 180 185 190  
 Leu Arg Glu Leu Val Gln Gly Arg Pro Ala Gly Ala Glu Lys Pro Tyr  
 195 200 205  
 Ile Cys Asn Glu Cys Gly Lys Ser Phe Ser Gln Trp Ser Lys Leu Leu  
 210 215 220  
 Arg His Gln Arg Ile His Thr Gly Glu Arg Pro Asn Thr Cys Ser Glu  
 225 230 235 240  
 Cys Gly Lys Ser Phe Thr Gln Ser Ser His Leu Val Gln His Gln Arg  
 245 250 255  
 Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Pro Asp Cys Gly Lys Cys  
 260 265 270  
 Phe Ser Trp Ser Ser Asn Leu Val Gln His Gln Arg Thr His Thr Gly  
 275 280 285  
 Glu Lys Pro Tyr Lys Cys Thr Glu Cys Glu Lys Ala Phe Thr Gln Ser  
 290 295 300  
 Thr Asn Leu Ile Lys His Gln Arg Ser His Thr Gly Glu Lys Pro Tyr  
 305 310 315 320  
 Lys Cys Gly Glu Cys Arg Arg Ala Phe Tyr Arg Ser Ser Asp Leu Ile  
 325 330 335  
 Gln His Gln Ala Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Pro Glu  
 340 345 350  
 Cys Gly Lys Arg Phe Gly Gln Asn His Asn Leu Leu Lys His Gln Lys  
 355 360 365  
 Ile His Ala Gly Glu Lys Pro Tyr Arg Cys Thr Glu Cys Gly Lys Ser  
 370 375 380  
 Phe Ile Gln Ser Ser Glu Leu Thr Gln His Gln Arg Thr His Thr Gly  
 385 390 395 400  
 Glu Lys Pro Tyr Glu Cys Leu Glu Cys Gly Lys Ser Phe Gly His Ser  
 405 410 415  
 Ser Thr Leu Ile Lys His Gln Arg Thr His Leu Arg Glu Asp Pro Phe  
 420 425 430  
 Lys Cys Pro Val Cys Gly Lys Thr Phe Thr Leu Ser Ala Thr Leu Leu

|                                                                 |     |     |
|-----------------------------------------------------------------|-----|-----|
| 435                                                             | 440 | 445 |
| Arg His Gln Arg Thr His Thr Gly Glu Arg Pro Tyr Lys Cys Pro Glu |     |     |
| 450                                                             | 455 | 460 |
| Cys Gly Lys Ser Phe Ser Val Ser Ser Asn Leu Ile Asn His Gln Arg |     |     |
| 465                                                             | 470 | 475 |
| Ile His Arg Gly Glu Arg Pro Tyr Ile Cys Ala Asp Cys Gly Lys Ser |     | 480 |
| 485                                                             | 490 | 495 |
| Phe Ile Met Ser Ser Thr Leu Ile Arg His Gln Arg Ile His Thr Gly |     |     |
| 500                                                             | 505 | 510 |
| Glu Lys Pro Tyr Lys Cys Ser Asp Cys Gly Lys Ser Phe Ile Arg Ser |     |     |
| 515                                                             | 520 | 525 |
| Ser His Leu Ile Gln His Arg Arg Thr His Thr Gly Glu Lys Pro Tyr |     |     |
| 530                                                             | 535 | 540 |
| Lys Cys Pro Glu Cys Gly Lys Ser Phe Ser Gln Ser Ser Asn Leu Ile |     |     |
| 545                                                             | 550 | 555 |
| Thr His Val Arg Thr His Met Asp Glu Asn Leu Phe Val Cys Ser Asp |     |     |
| 565                                                             | 570 | 575 |
| Cys Gly Lys Ala Phe Leu Glu Ala His Glu Leu Glu Gln His Arg Val |     |     |
| 580                                                             | 585 | 590 |
| Ile His Glu Arg Gly Lys Thr Pro Ala Arg Arg Ala Gln Gly Asp Ser |     |     |
| 595                                                             | 600 | 605 |
| Leu Leu Gly Leu Gly Asp Pro Ser Leu Leu Thr Pro Pro Pro Gly Ala |     |     |
| 610                                                             | 615 | 620 |
| Lys Pro His Lys Cys Leu Val Cys Gly Lys Gly Phe Asn Asp Glu Gly |     |     |
| 625                                                             | 630 | 635 |
| Ile Phe Met Gln His Gln Arg Ile His Ile Gly Glu Asn Pro Tyr Lys |     |     |
| 645                                                             | 650 | 655 |
| Asn Ala Asp Gly Leu Ile Ala His Ala Ala Pro Lys Pro Pro Gln Leu |     |     |
| 660                                                             | 665 | 670 |
| Arg Ser Pro Arg Leu Pro Phe Arg Gly Asn Ser Tyr Pro Gly Ala Ala |     |     |
| 675                                                             | 680 | 685 |
| Glu Gly Arg Ala Glu Ala Pro Gly Gln Pro Leu Lys Pro Pro Glu Gly |     |     |
| 690                                                             | 695 | 700 |
| Gln Glu Gly Phe Ser Gln Arg Arg Gly Leu Leu Ser Ser Lys Thr Tyr |     |     |
| 705                                                             | 710 | 715 |
| Ile Cys Ser His Cys Gly Glu Ser Phe Leu Asp Arg Ser Val Leu Leu |     |     |
| 725                                                             | 730 | 735 |
| Gln His Gln Leu Thr His Gly Asn Glu Lys Pro Phe Leu Phe Pro Asp |     |     |
| 740                                                             | 745 | 750 |
| Tyr Arg Ile Gly Leu Gly Glu Gly Ala Gly Pro Ser Pro Phe Leu Ser |     |     |
| 755                                                             | 760 | 765 |
| Gly Lys Pro Phe Lys Cys Pro Glu Cys Lys Gln Ser Phe Gly Leu Ser |     |     |
| 770                                                             | 775 | 780 |
| Ser Glu Leu Leu Leu His Gln Lys Val His Ala Gly Gly Lys Ser Ser |     |     |
| 785                                                             | 790 | 795 |
| His Lys Ser Pro Glu Leu Gly Lys Ser Ser Val Leu Leu Glu His     |     |     |
| 805                                                             | 810 | 815 |
| Leu Arg Ser Pro Leu Gly Ala Arg Pro Tyr Arg Cys Ser Asp Cys Arg |     |     |
| 820                                                             | 825 | 830 |
| Ala Ser Phe Leu Asp Arg Val Ala Leu Thr Arg His Gln Glu Thr His |     |     |
| 835                                                             | 840 | 845 |
| Thr Gln Glu Lys Pro Pro Asn Pro Glu Asp Pro Pro Glu Ala Val     |     |     |
| 850                                                             | 855 | 860 |
| Thr Leu Ser Thr Asp Gln Glu Gly Glu Gly Glu Thr Pro Thr Pro Thr |     |     |
| 865                                                             | 870 | 875 |
| Glu Ser Ser Ser His Gly Glu Gly Gln Asn Pro Lys Thr Leu Val Glu |     |     |
| 885                                                             | 890 | 895 |
| Glu Lys Pro Tyr Leu Cys Pro Glu Cys Gly Ala Gly Phe Thr Glu Val |     |     |
| 900                                                             | 905 | 910 |
| Ala Ala Leu Leu Leu His Arg Ser Cys His Pro Gly Val Ser Leu     |     |     |
| 915                                                             | 920 | 925 |
|                                                                 |     | 927 |

<210> 3930  
 <211> 79  
 <212> PRT  
 <213> Homo sapiens

<400> 3930  
 Lys Thr Gln Glu Thr His Ile Tyr Ile Ser Glu His Ile Phe Phe Pro  
 1 5 10 15  
 Phe Leu Gln Gly Phe Gly Asn Leu Pro Ile Cys Met Ala Lys Thr Asp  
 20 25 30  
 Leu Ser Leu Ser His Gln Pro Asp Lys Lys Gly Val Pro Ser Asp Phe  
 35 40 45  
 Ile Leu Pro Ile Ser Asp Val Arg Ala Ser Ile Gly Ala Gly Phe Ile  
 50 55 60  
 Tyr Pro Leu Val Gly Thr Gly Ser Arg Glu Ser Pro Leu Trp Leu  
 65 70 75 79

<210> 3931  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 3931  
 Lys Arg Arg Asp Phe Leu Ser Cys Trp Pro Ala Phe Thr Val Leu Gly  
 1 5 10 15  
 Glu Ala Arg Gly Asp Gln Val Asp Trp Ser Lys Leu Tyr Arg Asp Thr  
 20 25 30  
 Gly Leu Val Lys Met Ser Arg Lys Pro Arg Ala Ser Ser Pro Phe Ser  
 35 40 45  
 Asn Asn His Pro Ser Thr Pro Lys Arg Arg Gly Arg Gly Lys His Pro  
 50 55 60  
 Leu Ile Pro Gly Pro Glu Ala Leu Ser Lys Phe Pro Arg Gln Pro Ile  
 65 70 75 80  
 Arg Glu Lys Gly Pro Val Lys Glu Val Pro Gly Thr Lys Gly Ser Pro  
 85 90 95 96

<210> 3932  
 <211> 96  
 <212> PRT  
 <213> Homo sapiens

<400> 3932  
 Lys Arg Arg Asp Phe Leu Ser Cys Trp Pro Ala Phe Thr Val Leu Gly  
 1 5 10 15  
 Glu Ala Arg Gly Asp Gln Val Asp Trp Ser Lys Leu Tyr Arg Asp Thr  
 20 25 30  
 Gly Leu Val Lys Met Ser Arg Lys Pro Arg Ala Ser Ser Pro Phe Ser  
 35 40 45  
 Asn Asn His Pro Ser Thr Pro Lys Arg Arg Gly Arg Gly Lys His Pro  
 50 55 60  
 Leu Ile Pro Gly Pro Glu Ala Leu Ser Lys Phe Pro Arg Gln Pro Ile  
 65 70 75 80  
 Arg Glu Lys Gly Pro Val Lys Glu Val Pro Gly Thr Lys Gly Ser Pro  
 85 90 95 96

<210> 3933  
 <211> 515  
 <212> PRT  
 <213> Homo sapiens

<400> 3933  
 Ser Thr His Ala Ser Glu His Trp Asp Ser Ala Leu Gln Leu Ala Lys  
 1 5 10 15  
 His Leu Ala Pro Asp Gln Ile Pro Phe Ile Ser Lys Glu Tyr Ala Ile  
 20 25 30  
 Gln Leu Glu Phe Ala Gly Asp Tyr Val Asn Ala Leu Ala His Tyr Glu  
 35 40 45  
 Lys Gly Ile Thr Gly Asp Asn Lys Glu His Asp Glu Ala Cys Leu Ala  
 50 55 60  
 Gly Val Ala Gln Met Ser Ile Arg Met Gly Asp Ile Arg Arg Gly Val  
 65 70 75 80  
 Asn Gln Ala Leu Lys His Pro Ser Arg Val Leu Lys Arg Asp Cys Gly  
 85 90 95  
 Ala Ile Leu Glu Asn Met Lys Gln Phe Ser Glu Ala Ala Gln Leu Tyr  
 100 105 110  
 Glu Lys Gly Leu Tyr Tyr Asp Lys Ala Ala Ser Val Tyr Ile Arg Ser  
 115 120 125  
 Lys Asn Trp Ala Lys Val Gly Asp Leu Leu Pro His Val Ser Ser Pro  
 130 135 140  
 Lys Ile His Leu Gln Tyr Ala Lys Ala Lys Glu Ala Asp Gly Arg Tyr  
 145 150 155 160  
 Lys Glu Ala Val Val Ala Tyr Glu Asn Ala Lys Gln Trp Gln Ser Val  
 165 170 175  
 Ile Arg Ile Tyr Leu Asp His Leu Asn Asn Pro Glu Lys Ala Val Asn  
 180 185 190  
 Ile Val Arg Glu Thr Gln Ser Leu Asp Gly Ala Lys Met Val Ala Arg  
 195 200 205  
 Phe Phe Leu Gln Leu Gly Asp Tyr Gly Ser Ala Ile Gln Phe Leu Val  
 210 215 220  
 Met Ser Lys Cys Asn Asn Glu Ala Phe Thr Leu Ala Gln Gln His Asn  
 225 230 235 240  
 Lys Met Glu Ile Tyr Ala Asp Ile Ile Gly Ser Glu Asp Thr Thr Asn  
 245 250 255  
 Glu Asp Tyr Gln Ser Ile Ala Leu Tyr Phe Glu Gly Glu Lys Arg Tyr  
 260 265 270  
 Leu Gln Ala Gly Lys Phe Phe Leu Leu Cys Gly Gln Tyr Ser Arg Ala  
 275 280 285  
 Leu Lys His Phe Leu Lys Cys Pro Ser Ser Glu Asp Asn Val Ala Ile  
 290 295 300  
 Glu Met Ala Ile Glu Thr Val Gly Gln Ala Lys Asp Glu Leu Leu Thr  
 305 310 315 320  
 Asn Gln Leu Ile Asp His Leu Leu Gly Glu Asn Asp Gly Met Pro Lys  
 325 330 335  
 Asp Ala Lys Tyr Leu Phe Arg Leu Tyr Met Ala Leu Lys Gln Tyr Arg  
 340 345 350  
 Glu Ala Ala Gln Thr Ala Ile Ile Ile Ala Arg Glu Glu Gln Ser Ala  
 355 360 365  
 Gly Asn Tyr Arg Asn Ala His Asp Val Leu Phe Ser Met Tyr Ala Glu  
 370 375 380  
 Leu Lys Ser Gln Lys Ile Lys Ile Pro Ser Glu Met Ala Thr Asn Leu  
 385 390 395 400  
 Met Ile Leu His Ser Tyr Ile Leu Val Lys Ile His Val Lys Asn Gly  
 405 410 415  
 Asp His Met Lys Gly Ala Arg Met Leu Ile Arg Val Ala Asn Asn Ile

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<210> 3934
<211> 312
<212> PRT
<213> Homo sapiens
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5697

<210> 3935  
 <211> 294  
 <212> PRT  
 <213> Homo sapiens

<400> 3935  
 His Glu Thr Thr Pro Ala Val Val Gln Ser Val Leu Leu Glu Arg Gly  
 1 5 10 15  
 Trp Asn Lys Phe Asp Lys Gln Glu Gln Asn Ala Glu Asp Trp Asn Leu  
 20 25 30  
 Tyr Trp Arg Thr Ser Ser Phe Arg Met Thr Glu His Asn Ser Val Lys  
 35 40 45  
 Pro Trp Gln Gln Leu Asn His His Pro Gly Thr Thr Lys Leu Thr Arg  
 50 55 60  
 Lys Asp Cys Leu Ala Lys His Leu Lys His Met Arg Arg Met Tyr Gly  
 65 70 75 80  
 Thr Ser Leu Tyr Gln Phe Ile Pro Leu Thr Phe Val Met Pro Asn Asp  
 85 90 95  
 Tyr Thr Lys Phe Val Ala Glu Tyr Phe Gln Glu Arg Gln Met Leu Gly  
 100 105 110  
 Thr Lys His Ser Tyr Trp Ile Cys Lys Pro Ala Glu Leu Ser Arg Gly  
 115 120 125  
 Arg Gly Ile Leu Ile Phe Ser Asp Phe Lys Asp Phe Ile Phe Asp Asp  
 130 135 140  
 Met Tyr Ile Val Gln Lys Tyr Ile Ser Asn Pro Leu Leu Ile Gly Arg  
 145 150 155 160  
 Tyr Lys Cys Asp Leu Arg Ile Tyr Val Cys Val Thr Gly Phe Lys Pro  
 165 170 175  
 Leu Thr Ile Tyr Val Tyr Gln Glu Gly Leu Val Arg Phe Ala Thr Glu  
 180 185 190  
 Lys Phe Asp Leu Ser Asn Leu Gln Asn Asn Tyr Ala His Leu Thr Asn  
 195 200 205  
 Ser Ser Ile Asn Lys Ser Gly Ala Ser Tyr Glu Lys Ile Lys Glu Val  
 210 215 220  
 Ile Gly His Gly Cys Lys Trp Thr Leu Ser Arg Phe Phe Ser Tyr Leu  
 225 230 235 240  
 Arg Ser Trp Asp Val Asp Asp Leu Leu Leu Trp Lys Lys Ile His Arg  
 245 250 255  
 Met Val Ile Leu Thr Ile Leu Ala Ile Ala Pro Ser Val Pro Phe Ala  
 260 265 270  
 Ala Asn Cys Phe Glu Leu Phe Gly Phe Asp Ile Leu Ile Asp Asp Asn  
 275 280 285  
 Glu Phe His Arg Thr Gly  
 290 294

<210> 3936  
 <211> 79  
 <212> PRT  
 <213> Homo sapiens

<400> 3936  
 His Leu Ala His Ser Leu Gly Pro Leu Pro Lys His Tyr Gln Tyr Cys  
 1 5 10 15  
 Val Arg Tyr Leu Tyr Tyr Gln Val Thr Lys Asp Val Ile Lys Glu Phe  
 20 25 30  
 Ala Asp Asp Gly Val Lys Tyr Leu Glu Leu Arg Ser Thr Pro Arg Arg  
 35 40 45  
 Glu Asn Ala Thr Gly Met Thr Lys Lys Thr Tyr Val Glu Ser Ile Leu



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<210> 3937
<211> 1633
<212> DNA
<213> Homo sapiens
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<220>
<221> CDS
<222> (292) .. (1431)
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|             |            |            |            |            |            |  |     |
|-------------|------------|------------|------------|------------|------------|--|-----|
| <400>       | 3937       |            |            |            |            |  |     |
| agcccatgga  | ctctgggtcc | ccgaaggaca | tctcaggaac | cccctagttc | tctactttga |  | 60  |
| gacatatgcg  | gtggctgggg | tcactctgag | aagtgtcact | ttggacttgt | cccttgcggt |  | 120 |
| gggtgatgga  | gtcagacacc | accagcagtg | gatggccaag | cttcaagggc | accttcttag |  | 180 |
| cagctctgtg  | ggctgtgggc | aaaagacttt | cctgtttctc | cttctccata | ttagggaccc |  | 240 |
| agggaaagtgc | ttgctgcttc | cagcctcgct | gatggctctg | aggagcaggt | g atg gct  |  | 297 |
|             |            |            |            |            | Met Ala    |  |     |
|             |            |            |            |            | 1          |  |     |

gtg gca ttg gtg aga gaa agg gac ctg tca ttt cca ggg gtg ggt gat 345  
Val Ala Leu Val Arg Glu Arg Asp Leu Ser Phe Pro Gly Val Gly Asp  
5 10 15

gct gtg gta aac ccc aca agg tgg cac ttg cct gcc cag cct gag atg 393  
Ala Val Val Asn Pro Thr Arg Trp His Leu Pro Ala Gln Pro Glu Met  
20 25 30

ctg tat gag ggc ggt gag gga agg atg gag acg ctg aag gat aag acc 441  
Leu Tyr Glu Gly Gly Glu Gly Arg Met Glu Thr Leu Lys Asp Lys Thr  
35 40 45 50

ctg cag gag ctg gag gag ttg cag aat gac tcg gag gcg att gac cag 489  
Leu Gln Glu Leu Glu Glu Leu Gln Asn Asp Ser Glu Ala Ile Asp Gln  
55 60 65

ctg gcc ctg gag tcc cct gag gtc cag gac cta cag ctg gaa cgg gag 537  
Leu Ala Leu Glu Ser Pro Glu Val Gln Asp Leu Gln Leu Glu Arg Glu  
70 75 80

atg gca ctg gcc acc aac cgg agc ctg gca gag cgg aac ttg gag ttc 585  
Met Ala Leu Ala Thr Asn Arg Ser Leu Ala Glu Arg Asn Leu Glu Phe  
85 90 95

cag ggt ccc ctg gag atc agc cgc tca aac ctc tcg gat aga tac cag 633  
Gln Gly Pro Leu Glu Ile Ser Arg Ser Asn Leu Ser Asp Arg Tyr Gln  
100 105 110

gag ctc cgg aag ctc gtg gag cgg tgc cag gag cag aag gca aag ctg 681  
Glu Leu Arg Lys Leu Val Glu Arg Cys Gln Glu Gln Lys Ala Lys Leu  
115 120 125 130

gag aaa ttt tct tca gca ctg cag cca ggg acc ttg tta gac ctt ctg 729  
Glu Lys Phe Ser Ser Ala Leu Gln Pro Gly Thr Leu Leu Asp Leu Leu

| 135                                                                                                                                                   | 140 | 145 |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|------|
| cag gtg gaa ggc atg aag atc gaa gaa gag tcc gag gcc atg gct gag<br>Gln Val Glu Gly Met Lys Ile Glu Glu Glu Ser Glu Ala Met Ala Glu<br>150 155 160     |     |     | 777  |
| aag ttc ctg gag ggc gag gtg ccc ctg gaa acg ttc ctg gag aat ttt<br>Lys Phe Leu Glu Gly Glu Val Pro Leu Glu Thr Phe Leu Glu Asn Phe<br>165 170 175     |     |     | 825  |
| tcc tcc atg agg atg ctg tcc cac ctg cgc cgg gtt cgc gtg gaa aag<br>Ser Ser Met Arg Met Leu Ser His Leu Arg Arg Val Arg Val Glu Lys<br>180 185 190     |     |     | 873  |
| ctc cag gaa gtg gtg agg aag ccc agg gct tcc cag gag ctg gcc ggc<br>Leu Gln Glu Val Val Arg Lys Pro Arg Ala Ser Gln Glu Leu Ala Gly<br>195 200 205 210 |     |     | 921  |
| gat gcc cct cca ccc cgt cca cca ccc ccg gtg cgc cca gtc ccc cag<br>Asp Ala Pro Pro Pro Arg Pro Pro Pro Pro Val Arg Pro Val Pro Gln<br>215 220 225     |     |     | 969  |
| gga aca ccc cct gtg gtt gaa gag cag ccg cag cca cca tta gcc atg<br>Gly Thr Pro Pro Val Val Glu Glu Gln Pro Gln Pro Pro Leu Ala Met<br>230 235 240     |     |     | 1017 |
| cct ccc tac cct ttg ccc tac agc cca tcc ccc agc ctg cct gtg ggc<br>Pro Pro Tyr Pro Leu Pro Tyr Ser Pro Ser Pro Ser Leu Pro Val Gly<br>245 250 255     |     |     | 1065 |
| ccc act gcc cat gga gcc ctg cca ccg gcc cct ttc cca gta gtg tcc<br>Pro Thr Ala His Gly Ala Leu Pro Pro Ala Pro Phe Pro Val Val Ser<br>260 265 270     |     |     | 1113 |
| cag ccc tcc ttc tac agc ggg cct ctg ggc ccc act tac ccg gca gcc<br>Gln Pro Ser Phe Tyr Ser Gly Pro Leu Gly Pro Thr Tyr Pro Ala Ala<br>275 280 285 290 |     |     | 1161 |
| cag ctt gga ccc agg gtc cca ccc acg ctc aac ctt tgg ccc agc cat<br>Gln Leu Gly Pro Arg Val Pro Pro Thr Leu Asn Leu Trp Pro Ser His<br>295 300 305     |     |     | 1209 |
| cgc cga gat tcg agg gtc aac tgg aag tgg cgt tgg tgc tcc ctg tgg<br>Arg Arg Asp Ser Arg Val Asn Trp Lys Trp Arg Trp Cys Ser Leu Trp<br>310 315 320     |     |     | 1257 |
| act tgc gtc ggc acc cag agg cct tgg agg gac aag gca ctg ggc ggt<br>Thr Cys Val Gly Thr Gln Arg Pro Trp Arg Asp Lys Ala Leu Gly Gly<br>325 330 335     |     |     | 1305 |
| gtg act ggt cat ggc act tgc tgg cct tct ggc cag agg tcc tcc tgg<br>Val Thr Gly His Gly Thr Cys Trp Pro Ser Gly Gln Arg Ser Ser Trp<br>340 345 350     |     |     | 1353 |
| aag ccc ctc ctt tca gtg cct ggc tgc agc ggt gct agc cag gct gga<br>Lys Pro Leu Leu Ser Val Pro Gly Cys Ser Gly Ala Ser Gln Ala Gly<br>355 360 365 370 |     |     | 1401 |
| gtc cag cac ctc tcg ccg gtg tct gtg tga g tgagcgcacatg tgcgcattta<br>Val Gln His Leu Ser Pro Val Ser Val *                                            |     |     | 1452 |
|                                                                                                                                                       | 375 | 380 |      |
| tgagcatcta cttgcggctg cactcagggc catttgaacc cagtgcagag ttatctctat                                                                                     |     |     | 1512 |

gaggaggccc cgggtctcca gcccctcca tctccctgg gggttgcat atttgacatg 1572  
 gagcccatg ccaagggatg cagcttggtg tggcttgta atccattcaa gctagcctgc 1632  
 c 1633

<210> 3938  
 <211> 2914  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> CDS  
 <222> (1) .. (2583)

<400> 3938  
 atg gaa atc ggc tcc gca gga ccc gct ggg gcc cag ccc cta ctc atg 48  
 Met Glu Ile Gly Ser Ala Gly Pro Ala Gly Ala Gln Pro Leu Leu Met  
 1 5 10 15  
 gtg ccc aga aga cct ggc tat ggc gcc atg ggc aaa ccc att aaa ctg 96  
 Val Pro Arg Arg Pro Gly Tyr Gly Ala Met Gly Lys Pro Ile Lys Leu  
 20 25 30  
 ctg gct aac tgt ttt caa gtt gaa atc cca aag att gat gtc tac ctc 144  
 Leu Ala Asn Cys Phe Gln Val Glu Ile Pro Lys Ile Asp Val Tyr Leu  
 35 40 45  
 tat gag gta gat att aaa cca gac aag tgt cct agg aga gtg aac agg 192  
 Tyr Glu Val Asp Ile Lys Pro Asp Lys Cys Pro Arg Arg Val Asn Arg  
 50 55 60  
 gag gtg gtt gac tca atg gtt cag cat ttt aaa gta act ata ttt gga 240  
 Glu Val Val Asp Ser Met Val Gln His Phe Lys Val Thr Ile Phe Gly  
 65 70 75 80  
 gac cgt aga cca gtt tat gat gga aaa aga agt ctt tac acc gcc aat 288  
 Asp Arg Arg Pro Val Tyr Asp Gly Lys Arg Ser Leu Tyr Thr Ala Asn  
 85 90 95  
 cca ctt cct gtg gca act aca ggg gta gat tta gac gtt act tta cct 336  
 Pro Leu Pro Val Ala Thr Thr Gly Val Asp Leu Asp Val Thr Leu Pro  
 100 105 110  
 ggg gaa ggt gga aaa gat cga cct ttc aag gtg tca atc aaa ttt gtc 384  
 Gly Glu Gly Gly Lys Asp Arg Pro Phe Lys Val Ser Ile Lys Phe Val  
 115 120 125  
 tct cgg gtg agt tgg cac cta ctg cat gaa gta ctg aca gga cgg act 432  
 Ser Arg Val Ser Trp His Leu Leu His Glu Val Leu Thr Gly Arg Thr  
 130 135 140  
 ttg cct gag cca ctg gaa tta gac aag cca atc agc act aac cct gtc 480  
 Leu Pro Glu Pro Leu Glu Leu Asp Lys Pro Ile Ser Thr Asn Pro Val  
 145 150 155 160  
 cat gcc gtt gat gtg gtg cta cga cat ctg ccc tcc atg aaa tac aca 528  
 His Ala Val Asp Val Val Leu Arg His Leu Pro Ser Met Lys Tyr Thr  
 165 170 175  
 cct gtg ggg cgt tca ttt ttc tcc gct cca gaa gga tat gac cac cct 576

|                                                                 |      |
|-----------------------------------------------------------------|------|
| Pro Val Gly Arg Ser Phe Phe Ser Ala Pro Glu Gly Tyr Asp His Pro |      |
| 180 185 190                                                     |      |
| ctg gga ggg ggc agg gaa gtg tgg ttt gga ttc cat cag tct gtt cgg | 624  |
| Leu Gly Gly Gly Arg Glu Val Trp Phe Gly Phe His Gln Ser Val Arg |      |
| 195 200 205                                                     |      |
| cct gcc atg tgg aaa atg atg ctt aat atc gat gtt tct gcc act gcc | 672  |
| Pro Ala Met Trp Lys Met Met Leu Asn Ile Asp Val Ser Ala Thr Ala |      |
| 210 215 220                                                     |      |
| ttc tac aaa gca caa cct gta att cag ttc atg tgt gaa gtt ctt gat | 720  |
| Phe Tyr Lys Ala Gln Pro Val Ile Gln Phe Met Cys Glu Val Leu Asp |      |
| 225 230 235 240                                                 |      |
| att cat aat att gat gag caa cca aga cct ctg act gat tct cat cgg | 768  |
| Ile His Asn Ile Asp Glu Gln Pro Arg Pro Leu Thr Asp Ser His Arg |      |
| 245 250 255                                                     |      |
| gta aaa ttc acc aaa gag ata aaa ggt ttg aag gtt gaa gtg act cat | 816  |
| Val Lys Phe Thr Lys Glu Ile Lys Gly Leu Lys Val Glu Val Thr His |      |
| 260 265 270                                                     |      |
| tgt gga aca atg aga cgg aaa tac cgt gtt tgt aat gta aca agg agg | 864  |
| Cys Gly Thr Met Arg Arg Lys Tyr Arg Val Cys Asn Val Thr Arg Arg |      |
| 275 280 285                                                     |      |
| cct gcc agt cat caa acc ttt cct tta cag tta gaa aac ggc caa act | 912  |
| Pro Ala Ser His Gln Thr Phe Pro Leu Gln Leu Glu Asn Gly Gln Thr |      |
| 290 295 300                                                     |      |
| gtg gag aga aca gta gcg cag tat ttc aga gaa aag tat act ctt cag | 960  |
| Val Glu Arg Thr Val Ala Gln Tyr Phe Arg Glu Lys Tyr Thr Leu Gln |      |
| 305 310 315 320                                                 |      |
| ctg aag tac ccg cac ctt ccc tgt ctg caa gtc ggg cag gaa cag aaa | 1008 |
| Leu Lys Tyr Pro His Leu Pro Cys Leu Gln Val Gly Gln Glu Gln Lys |      |
| 325 330 335                                                     |      |
| cac acc tac ctg cca cta gaa gtc tgt aat att gtg gca ggg caa cga | 1056 |
| His Thr Tyr Leu Pro Leu Glu Val Cys Asn Ile Val Ala Gly Gln Arg |      |
| 340 345 350                                                     |      |
| tgt atc aag aag cta aca gac aat cag act tcc act atg atc aag gca | 1104 |
| Cys Ile Lys Lys Leu Thr Asp Asn Gln Thr Ser Thr Met Ile Lys Ala |      |
| 355 360 365                                                     |      |
| aca gca aga tct gca cca gat aga caa gag gaa att agc aga ttg gta | 1152 |
| Thr Ala Arg Ser Ala Pro Asp Arg Gln Glu Glu Ile Ser Arg Leu Val |      |
| 370 375 380                                                     |      |
| aga agt gca aat tat gaa aca gat cca ttt gtt cag gag ttt caa ttt | 1200 |
| Arg Ser Ala Asn Tyr Glu Thr Asp Pro Phe Val Gln Glu Phe Gln Phe |      |
| 385 390 395 400                                                 |      |
| aaa gtt cgg gat gaa atg gct cat gta act gga cgc gta ctt cca gca | 1248 |
| Lys Val Arg Asp Glu Met Ala His Val Thr Gly Arg Val Leu Pro Ala |      |
| 405 410 415                                                     |      |
| cct atg ctc cag tat gga gga cgg aat cgg aca gta gca aca ccg agc | 1296 |
| Pro Met Leu Gln Tyr Gly Gly Arg Asn Arg Thr Val Ala Thr Pro Ser |      |
| 420 425 430                                                     |      |
| cat gga gta tgg gac atg cga ggg aaa caa ttc cac aca gga gtt gaa | 1344 |

|                                                                 |      |
|-----------------------------------------------------------------|------|
| His Gly Val Trp Asp Met Arg Gly Lys Gln Phe His Thr Gly Val Glu |      |
| 435 440 445                                                     |      |
| atc aaa atg tgg gct atc gct tgt ttt gcc aca cag agg cag tgc aga | 1392 |
| Ile Lys Met Trp Ala Ile Ala Cys Phe Ala Thr Gln Arg Gln Cys Arg |      |
| 450 455 460                                                     |      |
| gaa gaa ata ttg aag ggt ttc aca gac cag ctg cgt aag att tct aag | 1440 |
| Glu Glu Ile Leu Lys Gly Phe Thr Asp Gln Leu Arg Lys Ile Ser Lys |      |
| 465 470 475 480                                                 |      |
| gat gca ggg atg ccc atc cag ggc cag cca tgc ttc tgc aaa tat gca | 1488 |
| Asp Ala Gly Met Pro Ile Gln Gly Gln Pro Cys Phe Cys Lys Tyr Ala |      |
| 485 490 495                                                     |      |
| cag ggg gca gac agc gta gag ccc atg ttc cgg cat ctc aag aac aca | 1536 |
| Gln Gly Ala Asp Ser Val Glu Pro Met Phe Arg His Leu Lys Asn Thr |      |
| 500 505 510                                                     |      |
| tat tct ggc cta cag ctt att atc gtc atc ctg ccg ggg aag aca cca | 1584 |
| Tyr Ser Gly Leu Gln Leu Ile Ile Val Ile Leu Pro Gly Lys Thr Pro |      |
| 515 520 525                                                     |      |
| gtg tat gcg gaa gtg aaa cgt gta gga gac aca ctt ttg ggt atg gct | 1632 |
| Val Tyr Ala Glu Val Lys Arg Val Gly Asp Thr Leu Leu Gly Met Ala |      |
| 530 535 540                                                     |      |
| aca caa tgt gtt caa gtc aag aat gta ata aaa aca tct cct caa act | 1680 |
| Thr Gln Cys Val Gln Val Lys Asn Val Ile Lys Thr Ser Pro Gln Thr |      |
| 545 550 555 560                                                 |      |
| ctg tca aac ttg tgc cta aag ata aat gtt aaa ctc gga ggg atc aat | 1728 |
| Leu Ser Asn Leu Cys Leu Lys Ile Asn Val Lys Leu Gly Gly Ile Asn |      |
| 565 570 575                                                     |      |
| aat att ctt gta cct cat caa aga cct tct gtg ttc cag caa cca gtg | 1776 |
| Asn Ile Leu Val Pro His Gln Arg Pro Ser Val Phe Gln Gln Pro Val |      |
| 580 585 590                                                     |      |
| atc ttt ttg gga gcc gat gtc act cat cca cct gct ggt gat gga aag | 1824 |
| Ile Phe Leu Gly Ala Asp Val Thr His Pro Pro Ala Gly Asp Gly Lys |      |
| 595 600 605                                                     |      |
| aag cct tct att gct gct gtt gta ggt agt atg gat gca cac cca agc | 1872 |
| Lys Pro Ser Ile Ala Ala Val Val Gly Ser Met Asp Ala His Pro Ser |      |
| 610 615 620                                                     |      |
| aga tac tgt gcc aca gta aga gtt cag aga ccc cga cag gag atc atc | 1920 |
| Arg Tyr Cys Ala Thr Val Arg Val Gln Arg Pro Arg Gln Glu Ile Ile |      |
| 625 630 635 640                                                 |      |
| cag gac ttg gcc tcc atg gtc cgg gaa ctt ctt att caa ttt tat aag | 1968 |
| Gln Asp Leu Ala Ser Met Val Arg Glu Leu Leu Ile Gln Phe Tyr Lys |      |
| 645 650 655                                                     |      |
| tca act cgg ttc aag cct act cgt atc atc ttt tat cgg gat ggt gtt | 2016 |
| Ser Thr Arg Phe Lys Pro Thr Arg Ile Ile Phe Tyr Arg Asp Gly Val |      |
| 660 665 670                                                     |      |
| tca gag ggg cag ttt agg cag gta tta tat tat gaa cta cta gca att | 2064 |
| Ser Glu Gly Gln Phe Arg Gln Val Leu Tyr Tyr Glu Leu Leu Ala Ile |      |
| 675 680 685                                                     |      |
| cga gaa gcc tgc atc agt ttg gag aaa gac tat caa cct gga ata acc | 2112 |

|            |             |            |            |            |            |     |     |     |     |     |     |     |      |      |     |      |
|------------|-------------|------------|------------|------------|------------|-----|-----|-----|-----|-----|-----|-----|------|------|-----|------|
| Arg        | Glu         | Ala        | Cys        | Ile        | Ser        | Leu | Glu | Lys | Asp | Tyr | Gln | Pro | Gly  | Ile  | Thr |      |
| 690        |             |            |            |            |            | 695 |     |     |     |     | 700 |     |      |      |     |      |
| tac        | att         | gta        | gtt        | cag        | aag        | aga | cat | cac | act | cga | tta | ttt | tgt  | gct  | gat | 2160 |
| Tyr        | Ile         | Val        | Val        | Gln        | Lys        | Arg | His | His | Thr | Arg | Leu | Phe | Cys  | Ala  | Asp |      |
| 705        |             |            |            |            | 710        |     |     |     |     | 715 |     |     |      |      | 720 |      |
| agg        | aca         | gaa        | agg        | gtt        | gga        | aga | agt | ggc | aat | atc | cca | gct | gga  | aca  | aca | 2208 |
| Arg        | Thr         | Glu        | Arg        | Val        | Gly        | Arg | Ser | Gly | Asn | Ile | Pro | Ala | Gly  | Thr  | Thr |      |
|            |             |            |            | 725        |            |     |     |     | 730 |     |     |     |      | 735  |     |      |
| gtt        | gat         | aca        | gac        | att        | aca        | cac | cca | tat | gag | ttc | gat | ttt | tac  | ctc  | tgt | 2256 |
| Val        | Asp         | Thr        | Asp        | Ile        | Thr        | His | Pro | Tyr | Glu | Phe | Asp | Phe | Tyr  | Leu  | Cys |      |
|            |             |            |            | 740        |            |     |     | 745 |     |     |     |     | 750  |      |     |      |
| agc        | cat         | gct        | gga        | ata        | cag        | ggc | acc | agt | cgt | cct | tca | cac | tat  | cat  | gtt | 2304 |
| Ser        | His         | Ala        | Gly        | Ile        | Gln        | Gly | Thr | Ser | Arg | Pro | Ser | His | Tyr  | His  | Val |      |
|            |             | 755        |            |            |            |     | 760 |     |     |     |     |     | 765  |      |     |      |
| tta        | tgg         | gat        | gat        | aac        | tgc        | ttt | act | gca | gat | gaa | ctt | cag | ctg  | cta  | act | 2352 |
| Leu        | Trp         | Asp        | Asp        | Asn        | Cys        | Phe | Thr | Ala | Asp | Glu | Leu | Gln | Leu  | Leu  | Thr |      |
|            | 770         |            |            |            |            | 775 |     |     |     |     | 780 |     |      |      |     |      |
| tac        | cag         | ctc        | tgc        | cac        | act        | tac | gta | cgc | tgt | aca | cga | tct | gtt  | tct  | ata | 2400 |
| Tyr        | Gln         | Leu        | Cys        | His        | Thr        | Tyr | Val | Arg | Cys | Thr | Arg | Ser | Val  | Ser  | Ile |      |
| 785        |             |            |            |            | 790        |     |     |     |     | 795 |     |     |      |      | 800 |      |
| cct        | gca         | cca        | gcg        | tat        | tat        | gct | cac | ctg | gta | gca | ttt | aga | gcc  | aga  | tat | 2448 |
| Pro        | Ala         | Pro        | Ala        | Tyr        | Tyr        | Ala | His | Leu | Val | Ala | Phe | Arg | Ala  | Arg  | Tyr |      |
|            |             |            |            | 805        |            |     |     |     | 810 |     |     |     |      | 815  |     |      |
| cat        | ctt         | gtg        | gac        | aaa        | gaa        | cat | gac | agt | gct | gaa | gga | agt | cac  | gtt  | tca | 2496 |
| His        | Leu         | Val        | Asp        | Lys        | Glu        | His | Asp | Ser | Ala | Glu | Gly | Ser | His  | Val  | Ser |      |
|            |             |            | 820        |            |            |     |     | 825 |     |     |     |     | 830  |      |     |      |
| gga        | caa         | agc        | aat        | ggg        | cga        | gat | cca | caa | gct | ctt | gcc | aag | gct  | gta  | cag | 2544 |
| Gly        | Gln         | Ser        | Asn        | Gly        | Arg        | Asp | Pro | Gln | Ala | Leu | Ala | Lys | Ala  | Val  | Gln |      |
|            |             | 835        |            |            |            |     | 840 |     |     |     |     | 845 |      |      |     |      |
| att        | cac         | caa        | gat        | acc        | tta        | cgc | aca | atg | tac | ttc | gct | taa | atag | tcca | ag  | 2593 |
| Ile        | His         | Gln        | Asp        | Thr        | Leu        | Arg | Thr | Met | Tyr | Phe | Ala | *   |      |      |     |      |
|            | 850         |            |            |            |            | 855 |     |     |     |     | 860 |     |      |      |     |      |
| tatattctct | gagaggaagt  | actgaaagat | gaattgacat | acaacgtatg | tttccagtga |     |     |     |     |     |     |     |      |      |     | 2653 |
| agtcaattga | gtaaggacac  | ctccagccat | acagaaacca | acactgtgtg | ggggccaagg |     |     |     |     |     |     |     |      |      |     | 2713 |
| tctgatcctt | atgttaatac  | aaggaagatt | gtttacttca | tcaaggaaca | cagcatcatt |     |     |     |     |     |     |     |      |      |     | 2773 |
| atgcaatatg | aaaccagcca  | actgcttttt | gtgcggtctc | ctataggaag | tatcgcaatt |     |     |     |     |     |     |     |      |      |     | 2833 |
| gttttgtttt | catttcttgt  | agtctaacc  | ttttaatgcc | tttacctcaa | gttgcttggc |     |     |     |     |     |     |     |      |      |     | 2893 |
| agcacaacta | tcttttgcaaa | a          |            |            |            |     |     |     |     |     |     |     |      |      |     | 2914 |

&lt;210&gt; 3939

&lt;211&gt; 5640

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;



&lt;221&gt; CDS

&lt;222&gt; (88) .. (5412)

&lt;400&gt; 3939

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gtccttcgag tgtattatga ccgccttctg gacaatacag acagaagctg gctcatcaac 60

tacattcaag aaattttgag aaactac atg tat gaa gat ttt cat gag ctt 111
 Met Tyr Glu Asp Phe His Glu Leu
 1 5

ttt cag cgt ttg gat ttt gat aat gat ggc atg gtg gaa gca gat gac 159
Phe Gln Arg Leu Asp Phe Asp Asn Asp Gly Met Val Glu Ala Asp Asp
 10 15 20

tta cgc agc tta atg ttt tgt gat ttc cat gat ccc aag agg gag gat 207
Leu Arg Ser Leu Met Phe Cys Asp Phe His Asp Pro Lys Arg Glu Asp
 25 30 35 40

acc aac tac aga gaa atc gca gat gtg gat aat ctt cga atg ata gta 255
Thr Asn Tyr Arg Glu Ile Ala Asp Val Asp Asn Leu Arg Met Ile Val
 45 50 55

gaa att cac cta gaa gaa tac aac aat ata agc aaa aaa ccc atg aac 303
Glu Ile His Leu Glu Glu Tyr Asn Asn Ile Ser Lys Lys Pro Met Asn
 60 65 70

ctt gtc ttg ttt cga ttt gcc ata gag cac atc agc aga att tcc agg 351
Leu Val Leu Phe Arg Phe Ala Ile Glu His Ile Ser Arg Ile Ser Arg
 75 80 85

atc ctg aag cag cct cgc agc cat gct ctc cta gta ggg gtt gga ggg 399
Ile Leu Lys Gln Pro Arg Ser His Ala Leu Leu Val Gly Val Gly Gly
 90 95 100

agt gga agg cag tct gtc acc aga tta gct gcc cac atg gct gat tat 447
Ser Gly Arg Gln Ser Val Thr Arg Leu Ala Ala His Met Ala Asp Tyr
 105 110 115 120

tca gtt ttc caa gtt gaa atc tct aag ggg tat gat act act gaa tgg 495
Ser Val Phe Gln Val Glu Ile Ser Lys Gly Tyr Asp Thr Thr Glu Trp
 125 130 135

cat gaa gat tta aaa gtg atc tta agg aaa tgt gcg gaa gat act caa 543
His Glu Asp Leu Lys Val Ile Leu Arg Lys Cys Ala Glu Asp Thr Gln
 140 145 150

att aaa gaa gag tct ttt ctg gaa gat gtc agt aat ctg cta aat gct 591
Ile Lys Glu Glu Ser Phe Leu Glu Asp Val Ser Asn Leu Leu Asn Ala
 155 160 165

ggg gag att cca aat ctc ttt gca tta gat gag aag caa gag ata tgt 639
Gly Glu Ile Pro Asn Leu Phe Ala Leu Asp Glu Lys Gln Glu Ile Cys
 170 175 180

gat aag atg cgt cag tta gat cgc cag cgg gat aaa acc aag caa aca 687
Asp Lys Met Arg Gln Leu Asp Arg Gln Arg Asp Lys Thr Lys Gln Thr
 185 190 195 200

gat ggc agc ccc ata gcc ctt ttc aac atg ttt att gat cat tgc cgc 735
Asp Gly Ser Pro Ile Ala Leu Phe Asn Met Phe Ile Asp His Cys Arg
 205 210 215

agc caa ctg cat gtg gtc ctt gcc atg agt ccc att gga gat gca ttt 783
Ser Gln Leu His Val Val Leu Ala Met Ser Pro Ile Gly Asp Ala Phe

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| 220                                                                                                                                                   | 225 | 230 |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|------|
| cgg aat cgt ctt aga aag ttc cct gct ctt gtt aac tgc tgt acc att<br>Arg Asn Arg Leu Arg Lys Phe Pro Ala Leu Val Asn Cys Cys Thr Ile<br>235 240 245     |     |     | 831  |
| gac tgg ttt cag tca tgg cct gaa gat gca ctc cag gca gtt gcc tca<br>Asp Trp Phe Gln Ser Trp Pro Glu Asp Ala Leu Gln Ala Val Ala Ser<br>250 255 260     |     |     | 879  |
| cga ttc ttg gaa gaa att gaa atg tca gag gaa ata cga gat ggc tgt<br>Arg Phe Leu Glu Glu Ile Glu Met Ser Glu Glu Ile Arg Asp Gly Cys<br>265 270 275 280 |     |     | 927  |
| atc gac atg tgt aaa agc ttc cac act tct act ata gat tta tcc aaa<br>Ile Asp Met Cys Lys Ser Phe His Thr Ser Thr Ile Asp Leu Ser Lys<br>285 290 295     |     |     | 975  |
| tct ttc ttt gtt gaa ctt caa aga tac aat tat gtg act cct acc tct<br>Ser Phe Phe Val Glu Leu Gln Arg Tyr Asn Tyr Val Thr Pro Thr Ser<br>300 305 310     |     |     | 1023 |
| tac ctc gaa tta atc tcc acc ttc aaa ctg ttg tta gaa aag aaa aga<br>Tyr Leu Glu Leu Ile Ser Thr Phe Lys Leu Leu Leu Glu Lys Lys Arg<br>315 320 325     |     |     | 1071 |
| agt gaa gta atg aaa atg aaa aag aga tat gaa gtg ggt ttg gag aaa<br>Ser Glu Val Met Lys Met Lys Lys Arg Tyr Glu Val Gly Leu Glu Lys<br>330 335 340     |     |     | 1119 |
| ctg gat tct gct tca tct caa gta gcc aca atg cag atg gag ttg gag<br>Leu Asp Ser Ala Ser Ser Gln Val Ala Thr Met Gln Met Glu Leu Glu<br>345 350 355 360 |     |     | 1167 |
| gca cta cat cct caa tta aaa gtt gct agc aaa gag gtt gat gaa atg<br>Ala Leu His Pro Gln Leu Lys Val Ala Ser Lys Glu Val Asp Glu Met<br>365 370 375     |     |     | 1215 |
| atg ata atg att gag aaa gag tct gta gaa gtt gcc aaa act gaa aaa<br>Met Ile Met Ile Glu Lys Glu Ser Val Glu Val Ala Lys Thr Glu Lys<br>380 385 390     |     |     | 1263 |
| ata gtg aaa gct gat gaa aca ata gcg aat gaa caa gct atg gct tcc<br>Ile Val Lys Ala Asp Glu Thr Ile Ala Asn Glu Gln Ala Met Ala Ser<br>395 400 405     |     |     | 1311 |
| aaa gcc atc aaa gat gag tgc gat gct gac ctg gca ggt gcc ttg cca<br>Lys Ala Ile Lys Asp Glu Cys Asp Ala Asp Leu Ala Gly Ala Leu Pro<br>410 415 420     |     |     | 1359 |
| ata tta gag tca gca ctg gcc gcc ctt gat act ctt act gca cag gat<br>Ile Leu Glu Ser Ala Leu Ala Ala Leu Asp Thr Leu Thr Ala Gln Asp<br>425 430 435 440 |     |     | 1407 |
| att aca gtg gta aaa tcc atg aag agt cct cct gct ggt gtc aag ctt<br>Ile Thr Val Val Lys Ser Met Lys Ser Pro Pro Ala Gly Val Lys Leu<br>445 450 455     |     |     | 1455 |
| gtt atg gaa gct ata tgc atc ttg aaa gga atc aaa gct gac aaa atc<br>Val Met Glu Ala Ile Cys Ile Leu Lys Gly Ile Lys Ala Asp Lys Ile<br>460 465 470     |     |     | 1503 |
| cct gac cca aca ggt tca ggg aaa aaa att gag gat ttc tgg ggc cca<br>Pro Asp Pro Thr Gly Ser Gly Lys Lys Ile Glu Asp Phe Trp Gly Pro<br>480 485 490 495 |     |     | 1551 |

| 475                                                                                                                                                   | 480 | 485 |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-----|-----|------|
| gct aag aga ctt ctt ggt gac atg agg ttt ctg cag tca ctt cat gaa<br>Ala Lys Arg Leu Leu Gly Asp Met Arg Phe Leu Gln Ser Leu His Glu<br>490 495 500     |     |     | 1599 |
| tat gac aag gac aat att cct cca gct tat atg aat atc ata aga aaa<br>Tyr Asp Lys Asp Asn Ile Pro Pro Ala Tyr Met Asn Ile Ile Arg Lys<br>505 510 515 520 |     |     | 1647 |
| aat tat att cca aat cca gat ttt gta cca gaa aaa atc aga aat gct<br>Asn Tyr Ile Pro Asn Pro Asp Phe Val Pro Glu Lys Ile Arg Asn Ala<br>525 530 535     |     |     | 1695 |
| tct aca gcg gcc gaa ggt ctg tgc aaa tgg gtc ata gca atg gat tca<br>Ser Thr Ala Ala Glu Gly Leu Cys Lys Trp Val Ile Ala Met Asp Ser<br>540 545 550     |     |     | 1743 |
| tat gat aaa gtg gca aaa ata gta gct ccc aaa aag ata aaa ctg gct<br>Tyr Asp Lys Val Ala Lys Ile Val Ala Pro Lys Lys Ile Lys Leu Ala<br>555 560 565     |     |     | 1791 |
| gca gct gaa ggg gag ctt aaa att gcc atg gat ggt ctt aga aag aag<br>Ala Ala Glu Gly Glu Leu Lys Ile Ala Met Asp Gly Leu Arg Lys Lys<br>570 575 580     |     |     | 1839 |
| cag gca gcc ctt aag gaa gtt cag gac aag ctg gcc agg ctt caa gac<br>Gln Ala Ala Leu Lys Glu Val Gln Asp Lys Leu Ala Arg Leu Gln Asp<br>585 590 595 600 |     |     | 1887 |
| aca ctt gaa tta aat aaa caa aag aag gct gac ctg gaa aac cag gtt<br>Thr Leu Glu Leu Asn Lys Gln Lys Lys Ala Asp Leu Glu Asn Gln Val<br>605 610 615     |     |     | 1935 |
| gac ctt tgc agc aaa aaa cta gaa cga gct gaa cag ttg att gga ggc<br>Asp Leu Cys Ser Lys Lys Leu Glu Arg Ala Glu Gln Leu Ile Gly Gly<br>620 625 630     |     |     | 1983 |
| ctt gga ggt gag aaa act cga tgg agc cac aca gct ctg gag cta ggt<br>Leu Gly Gly Glu Lys Thr Arg Trp Ser His Thr Ala Leu Glu Leu Gly<br>635 640 645     |     |     | 2031 |
| cag ctg tac atc aac ttg act ggg gat atc ctc att tcc tcc gga gtg<br>Gln Leu Tyr Ile Asn Leu Thr Gly Asp Ile Leu Ile Ser Ser Gly Val<br>650 655 660     |     |     | 2079 |
| gtt gct tac ctc gga gcc ttc aca tcc acc tat aga cag aat caa act<br>Val Ala Tyr Leu Gly Ala Phe Thr Ser Thr Tyr Arg Gln Asn Gln Thr<br>665 670 675 680 |     |     | 2127 |
| aaa gag tgg aca act ttg tgc aaa gga aga gat atc ccc tgc tca gat<br>Lys Glu Trp Thr Thr Leu Cys Lys Gly Arg Asp Ile Pro Cys Ser Asp<br>685 690 695     |     |     | 2175 |
| gat tgc tct ctt atg ggt acc ctg gga gaa gct gtg aca att cga act<br>Asp Cys Ser Leu Met Gly Thr Leu Gly Glu Ala Val Thr Ile Arg Thr<br>700 705 710     |     |     | 2223 |
| tgg aat att gct gga tta cct tct gac tca ttt tcc att gat aat ggg<br>Trp Asn Ile Ala Gly Leu Pro Ser Asp Ser Phe Ser Ile Asp Asn Gly<br>715 720 725     |     |     | 2271 |
| ata atc ata atg aat gca aga agg tgg cct ctg atg ata gat cct caa<br>Ile Ile Ile Met Asn Ala Arg Arg Trp Pro Leu Met Ile Asp Pro Gln                    |     |     | 2319 |

| 730                                                             | 735 | 740 |      |
|-----------------------------------------------------------------|-----|-----|------|
| agt cag gct aat aaa tgg atc aag aac atg gaa aaa gcc aat agt ctt |     |     | 2367 |
| Ser Gln Ala Asn Lys Trp Ile Lys Asn Met Glu Lys Ala Asn Ser Leu |     |     |      |
| 745                                                             | 750 | 755 | 760  |
| tat gtg att aaa ctt agt gaa cct gac tat gtc agg act ctg gaa aat |     |     | 2415 |
| Tyr Val Ile Lys Leu Ser Glu Pro Asp Tyr Val Arg Thr Leu Glu Asn |     |     |      |
|                                                                 | 765 | 770 | 775  |
| tgc atc cag ttt ggt act cct gtg ttg cta gaa aat gtt ggc gaa gaa |     |     | 2463 |
| Cys Ile Gln Phe Gly Thr Pro Val Leu Leu Glu Asn Val Gly Glu Glu |     |     |      |
|                                                                 | 780 | 785 | 790  |
| cta gat cct att ttg gaa cct ctt cta cta aaa caa acc ttt aag cag |     |     | 2511 |
| Leu Asp Pro Ile Leu Glu Pro Leu Leu Leu Lys Gln Thr Phe Lys Gln |     |     |      |
|                                                                 | 795 | 800 | 805  |
| ggt ggg agt aca tgt atc cgg ctt ggg gac tcc aca att gaa tat gca |     |     | 2559 |
| Gly Gly Ser Thr Cys Ile Arg Leu Gly Asp Ser Thr Ile Glu Tyr Ala |     |     |      |
|                                                                 | 810 | 815 | 820  |
| cct gac ttc cgc ttc tat att act acc aag tta aga aat cct cat tat |     |     | 2607 |
| Pro Asp Phe Arg Phe Tyr Ile Thr Thr Lys Leu Arg Asn Pro His Tyr |     |     |      |
|                                                                 | 825 | 830 | 835  |
| ctt cct gaa aca tca gta aag gta aca tta tta aac ttc atg ata acc |     |     | 2655 |
| Leu Pro Glu Thr Ser Val Lys Val Thr Leu Leu Asn Phe Met Ile Thr |     |     |      |
|                                                                 | 845 | 850 | 855  |
| cct gag gga atg caa gat cag ctt ctg gga att gtg gtg gca caa gaa |     |     | 2703 |
| Pro Glu Gly Met Gln Asp Gln Leu Leu Gly Ile Val Val Ala Gln Glu |     |     |      |
|                                                                 | 860 | 865 | 870  |
| agg cca gac ctt gaa gaa gaa aag caa gcc ttg ata tta caa gga gct |     |     | 2751 |
| Arg Pro Asp Leu Glu Glu Glu Lys Gln Ala Leu Ile Leu Gln Gly Ala |     |     |      |
|                                                                 | 875 | 880 | 885  |
| gaa aat aaa agg cag tta aaa gaa ata gaa gac aag att tta gaa gtt |     |     | 2799 |
| Glu Asn Lys Arg Gln Leu Lys Glu Ile Glu Asp Lys Ile Leu Glu Val |     |     |      |
|                                                                 | 890 | 895 | 900  |
| ctt tca tct tcg gaa ggc aat ata tta gaa gat gaa act gct att aag |     |     | 2847 |
| Leu Ser Ser Ser Glu Gly Asn Ile Leu Glu Asp Glu Thr Ala Ile Lys |     |     |      |
|                                                                 | 905 | 910 | 915  |
| ata tta tct tcc tcc aag gcc ttg gct aat gag att tct cag aag cag |     |     | 2895 |
| Ile Leu Ser Ser Ser Lys Ala Leu Ala Asn Glu Ile Ser Gln Lys Gln |     |     |      |
|                                                                 | 925 | 930 | 935  |
| gaa gta gcc gaa gag aca gag aaa aag att gac acc acc cgc atg ggc |     |     | 2943 |
| Glu Val Ala Glu Glu Thr Glu Lys Lys Ile Asp Thr Thr Arg Met Gly |     |     |      |
|                                                                 | 940 | 945 | 950  |
| tat cgt cct att gcc atc cat tct tcc atc cta ttt ttt tct ctt gct |     |     | 2991 |
| Tyr Arg Pro Ile Ala Ile His Ser Ser Ile Leu Phe Phe Ser Leu Ala |     |     |      |
|                                                                 | 955 | 960 | 965  |
| gat tta gcc aac att gag ccc atg tac cag tat tca ctg acc tgg ttt |     |     | 3039 |
| Asp Leu Ala Asn Ile Glu Pro Met Tyr Gln Tyr Ser Leu Thr Trp Phe |     |     |      |
|                                                                 | 970 | 975 | 980  |
| att aac ctt ttc atc ctg tct att gaa aat tca gag aaa tca gaa att |     |     | 3087 |
| Ile Asn Leu Phe Ile Leu Ser Ile Glu Asn Ser Glu Lys Ser Glu Ile |     |     |      |

| 985                                                             | 990  | 995  | 1000 |      |
|-----------------------------------------------------------------|------|------|------|------|
| ttg gca aaa agg ctt cag att ctc aag gat cac ttt act tat tca ctg |      |      |      | 3135 |
| Leu Ala Lys Arg Leu Gln Ile Leu Lys Asp His Phe Thr Tyr Ser Leu |      |      |      |      |
| 1005                                                            |      | 1010 | 1015 |      |
| tat gtt aat gtc tgc cgg tca ctc ttt gaa aag gat aag ctg ctc ttt |      |      |      | 3183 |
| Tyr Val Asn Val Cys Arg Ser Leu Phe Glu Lys Asp Lys Leu Leu Phe |      |      |      |      |
| 1020                                                            | 1025 |      | 1030 |      |
| tcc ttt tgt cta acc ata aat cta ctg ctg cat gag cgg gcg att aat |      |      |      | 3231 |
| Ser Phe Cys Leu Thr Ile Asn Leu Leu Leu His Glu Arg Ala Ile Asn |      |      |      |      |
| 1035                                                            | 1040 |      | 1045 |      |
| aaa gct gag tgg aga ttt ctg cta act ggt ggc att gga ctg gat aat |      |      |      | 3279 |
| Lys Ala Glu Trp Arg Phe Leu Leu Thr Gly Gly Ile Gly Leu Asp Asn |      |      |      |      |
| 1050                                                            | 1055 |      | 1060 |      |
| cct tat gcc aac cct tgt aca tgg ctt cct cag aaa tcc tgg gat gaa |      |      |      | 3327 |
| Pro Tyr Ala Asn Pro Cys Thr Trp Leu Pro Gln Lys Ser Trp Asp Glu |      |      |      |      |
| 1065                                                            | 1070 | 1075 | 1080 |      |
| ata tgt cga tta gat gat ttg cct gcc ttc aaa acc att cgt aga gag |      |      |      | 3375 |
| Ile Cys Arg Leu Asp Asp Leu Pro Ala Phe Lys Thr Ile Arg Arg Glu |      |      |      |      |
| 1085                                                            | 1090 |      | 1095 |      |
| ttt atg cgc tta aag gat gga tgg aag aaa gta tat gat agt ttg gaa |      |      |      | 3423 |
| Phe Met Arg Leu Lys Asp Gly Trp Lys Lys Val Tyr Asp Ser Leu Glu |      |      |      |      |
| 1100                                                            | 1105 |      | 1110 |      |
| cca cac cat gag gtt ttc cct gaa gaa tgg gaa gat aaa gca aat gag |      |      |      | 3471 |
| Pro His His Glu Val Phe Pro Glu Glu Trp Glu Asp Lys Ala Asn Glu |      |      |      |      |
| 1115                                                            | 1120 |      | 1125 |      |
| ttt caa agg atg ctt att att cgt tgc ttg agg cca gac aag gtt att |      |      |      | 3519 |
| Phe Gln Arg Met Leu Ile Ile Arg Cys Leu Arg Pro Asp Lys Val Ile |      |      |      |      |
| 1130                                                            | 1135 |      | 1140 |      |
| cca atg ttg cag gaa ttt ata atc aac aga ttg gga cgt gca ttc att |      |      |      | 3567 |
| Pro Met Leu Gln Glu Phe Ile Ile Asn Arg Leu Gly Arg Ala Phe Ile |      |      |      |      |
| 1145                                                            | 1150 | 1155 | 1160 |      |
| gaa cca ccc ccc ttt gat tta gcc aag gca ttt gga gac agt aac tgc |      |      |      | 3615 |
| Glu Pro Pro Pro Phe Asp Leu Ala Lys Ala Phe Gly Asp Ser Asn Cys |      |      |      |      |
| 1165                                                            | 1170 |      | 1175 |      |
| tgt gca cca ctg att ttc gtg ctc tct cct gga gca gat ccc atg gct |      |      |      | 3663 |
| Cys Ala Pro Leu Ile Phe Val Leu Ser Pro Gly Ala Asp Pro Met Ala |      |      |      |      |
| 1180                                                            | 1185 |      | 1190 |      |
| gcc ctt cta aaa ttt gct gat gac cag gga tat ggg gga tca aaa ctt |      |      |      | 3711 |
| Ala Leu Leu Lys Phe Ala Asp Asp Gln Gly Tyr Gly Gly Ser Lys Leu |      |      |      |      |
| 1195                                                            | 1200 |      | 1205 |      |
| agc tct tta tct ctt ggt caa ggc caa ggg ccc att gct atg aag atg |      |      |      | 3759 |
| Ser Ser Leu Ser Leu Gly Gln Gly Gln Gly Pro Ile Ala Met Lys Met |      |      |      |      |
| 1210                                                            | 1215 |      | 1220 |      |
| tta gaa aaa gct gtc aag gaa gga aca tgg gtt gtt ctt cag aat tgt |      |      |      | 3807 |
| Leu Glu Lys Ala Val Lys Glu Gly Thr Trp Val Val Leu Gln Asn Cys |      |      |      |      |
| 1225                                                            | 1230 | 1235 | 1240 |      |
| cac ctt gcc acc tct tgg atg cca acc ctt gag aaa gtc tgt gag gag |      |      |      | 3855 |
| His Leu Ala Thr Ser Trp Met Pro Thr Leu Glu Lys Val Cys Glu Glu |      |      |      |      |

| 1245                                                                                                                               | 1250 | 1255 |      |
|------------------------------------------------------------------------------------------------------------------------------------|------|------|------|
| tta agc cca gag tca aca cat cca gat ttc cga atg tgg cta acg agt<br>Leu Ser Pro Glu Ser Thr His Pro Asp Phe Arg Met Trp Leu Thr Ser |      |      | 3903 |
| 1260                                                                                                                               | 1265 | 1270 |      |
| tac cca tct cca aat ttc cct gtg tca gta ctg cag aat gga gtg aaa<br>Tyr Pro Ser Pro Asn Phe Pro Val Ser Val Leu Gln Asn Gly Val Lys |      |      | 3951 |
| 1275                                                                                                                               | 1280 | 1285 |      |
| atg acc aat gaa gca cca aaa ggt tta cgg gct aat atc att cga tca<br>Met Thr Asn Glu Ala Pro Lys Gly Leu Arg Ala Asn Ile Ile Arg Ser |      |      | 3999 |
| 1290                                                                                                                               | 1295 | 1300 |      |
| tac ctc atg gac ccg atc tct gat ccg gag ttc ttt ggc agc tgc aaa<br>Tyr Leu Met Asp Pro Ile Ser Asp Pro Glu Phe Phe Gly Ser Cys Lys |      |      | 4047 |
| 1305                                                                                                                               | 1310 | 1315 | 1320 |
| aag cct gag gaa ttc aag aaa ttg ctt tat ggc ctg tgt ttc ttt cat<br>Lys Pro Glu Glu Phe Lys Lys Leu Leu Tyr Gly Leu Cys Phe Phe His |      |      | 4095 |
| 1325                                                                                                                               | 1330 | 1335 |      |
| gct ttg gta caa gaa aga cgg aaa ttt gga ccc cta ggg tgg aat att<br>Ala Leu Val Gln Glu Arg Arg Lys Phe Gly Pro Leu Gly Trp Asn Ile |      |      | 4143 |
| 1340                                                                                                                               | 1345 | 1350 |      |
| cct tat gag ttc aat gag aca gat ctg aga atc agc gta cag cag ctc<br>Pro Tyr Glu Phe Asn Glu Thr Asp Leu Arg Ile Ser Val Gln Gln Leu |      |      | 4191 |
| 1355                                                                                                                               | 1360 | 1365 |      |
| cac atg ttc ctg aac cag tat gag gaa ctg ccg tat gag gct ctg cgg<br>His Met Phe Leu Asn Gln Tyr Glu Glu Leu Pro Tyr Glu Ala Leu Arg |      |      | 4239 |
| 1370                                                                                                                               | 1375 | 1380 |      |
| tac atg act ggc gaa tgc aat tac gga ggt aga gtg acc gat gac tgg<br>Tyr Met Thr Gly Glu Cys Asn Tyr Gly Gly Arg Val Thr Asp Asp Trp |      |      | 4287 |
| 1385                                                                                                                               | 1390 | 1395 | 1400 |
| gac cgg cgc acg ctg cgc agc att cta aac aaa ttc ttc aat ccc gaa<br>Asp Arg Arg Thr Leu Arg Ser Ile Leu Asn Lys Phe Phe Asn Pro Glu |      |      | 4335 |
| 1405                                                                                                                               | 1410 | 1415 |      |
| tta gtt gaa aat tca gac tat aag ttc gac tca agt ggc atc tat ttt<br>Leu Val Glu Asn Ser Asp Tyr Lys Phe Asp Ser Ser Gly Ile Tyr Phe |      |      | 4383 |
| 1420                                                                                                                               | 1425 | 1430 |      |
| gtt cct cct tct ggt gat cac aaa agc tac atc gaa tac aca aag act<br>Val Pro Pro Ser Gly Asp His Lys Ser Tyr Ile Glu Tyr Thr Lys Thr |      |      | 4431 |
| 1435                                                                                                                               | 1440 | 1445 |      |
| ctg cca ctg acc cca gca cca gaa atc ttt ggg atg aat gcc aat gca<br>Leu Pro Leu Thr Pro Ala Pro Glu Ile Phe Gly Met Asn Ala Asn Ala |      |      | 4479 |
| 1450                                                                                                                               | 1455 | 1460 |      |
| gat atc act aag gat cag tca gaa act cag ctg cta ttt gat aac att<br>Asp Ile Thr Lys Asp Gln Ser Glu Thr Gln Leu Leu Phe Asp Asn Ile |      |      | 4527 |
| 1465                                                                                                                               | 1470 | 1475 | 1480 |
| ctt ctt aca cag tct cgt tca gca ggt gct ggt gca aaa tca tca gat<br>Leu Leu Thr Gln Ser Arg Ser Ala Gly Ala Gly Ala Lys Ser Ser Asp |      |      | 4575 |
| 1485                                                                                                                               | 1490 | 1495 |      |
| gaa gta gtg aat gag gtc gct agt gac atc ttg ggc aaa ctt cca aac<br>Glu Val Val Asn Glu Val Ala Ser Asp Ile Leu Gly Lys Leu Pro Asn |      |      | 4623 |



| 1500                                                            | 1505 | 1510 |      |
|-----------------------------------------------------------------|------|------|------|
| aac ttc gac atc gag gct gcc atg agg agg tac cca aca act tat act |      |      | 4671 |
| Asn Phe Asp Ile Glu Ala Ala Met Arg Arg Tyr Pro Thr Thr Tyr Thr |      |      |      |
| 1515                                                            | 1520 | 1525 |      |
| cag agc atg aac act gta ctt gtc caa gag atg gga cgg ttc aat aag |      |      | 4719 |
| Gln Ser Met Asn Thr Val Leu Val Gln Glu Met Gly Arg Phe Asn Lys |      |      |      |
| 1530                                                            | 1535 | 1540 |      |
| tta ctg aag acc ata aga gat tgc gta aat att caa aaa gca atc     |      |      | 4767 |
| Leu Leu Lys Thr Ile Arg Asp Ser Cys Val Asn Ile Gln Lys Ala Ile |      |      |      |
| 1545                                                            | 1550 | 1555 | 1560 |
| aag ggg ctt gca gtc atg tct aca gat ctt gaa gaa gtg gtt agc agc |      |      | 4815 |
| Lys Gly Leu Ala Val Met Ser Thr Asp Leu Glu Glu Val Val Ser Ser |      |      |      |
| 1565                                                            | 1570 | 1575 |      |
| att ttg aat gtc aaa att cca gaa atg tgg atg ggt aaa tcc tac cca |      |      | 4863 |
| Ile Leu Asn Val Lys Ile Pro Glu Met Trp Met Gly Lys Ser Tyr Pro |      |      |      |
| 1580                                                            | 1585 | 1590 |      |
| agc ctt aaa cca ctt ggc agc tat gtg aat gac ttc ctt gca aga cta |      |      | 4911 |
| Ser Leu Lys Pro Leu Gly Ser Tyr Val Asn Asp Phe Leu Ala Arg Leu |      |      |      |
| 1595                                                            | 1600 | 1605 |      |
| aaa ttc ttg cag caa tgg tat gag gtt ggt cct cct cca gtc ttc tgg |      |      | 4959 |
| Lys Phe Leu Gln Gln Trp Tyr Glu Val Gly Pro Pro Pro Val Phe Trp |      |      |      |
| 1610                                                            | 1615 | 1620 |      |
| ctt tct ggc ttc ttc ttc aca caa gcc ttc ctg acc ggt gcc cag cag |      |      | 5007 |
| Leu Ser Gly Phe Phe Phe Thr Gln Ala Phe Leu Thr Gly Ala Gln Gln |      |      |      |
| 1625                                                            | 1630 | 1635 | 1640 |
| aac tac gcc agg aaa tac aca att cct att gat ctt ctt ggg ttt gac |      |      | 5055 |
| Asn Tyr Ala Arg Lys Tyr Thr Ile Pro Ile Asp Leu Leu Gly Phe Asp |      |      |      |
| 1645                                                            | 1650 | 1655 |      |
| tat gaa gtg atg gaa gac aaa gaa tac aag cat cct cct gag gat ggt |      |      | 5103 |
| Tyr Glu Val Met Glu Asp Lys Glu Tyr Lys His Pro Pro Glu Asp Gly |      |      |      |
| 1660                                                            | 1665 | 1670 |      |
| gtt ttc att cac gga tta ttt ctg gat gga gct tcc tgg aat aga aag |      |      | 5151 |
| Val Phe Ile His Gly Leu Phe Leu Asp Gly Ala Ser Trp Asn Arg Lys |      |      |      |
| 1675                                                            | 1680 | 1685 |      |
| atc aag aaa ctt gca gaa tgc cat ccc aaa att ctt tat gat aca gtg |      |      | 5199 |
| Ile Lys Lys Leu Ala Glu Ser His Pro Lys Ile Leu Tyr Asp Thr Val |      |      |      |
| 1690                                                            | 1695 | 1700 |      |
| cct gtg atg tgg cta aag ccc tgt aag agg gca gat ata cca aaa cgg |      |      | 5247 |
| Pro Val Met Trp Leu Lys Pro Cys Lys Arg Ala Asp Ile Pro Lys Arg |      |      |      |
| 1705                                                            | 1710 | 1715 | 1720 |
| cca agt tat gtt gct cca ttg tat aag aca agt gag cgg aga gga gta |      |      | 5295 |
| Pro Ser Tyr Val Ala Pro Leu Tyr Lys Thr Ser Glu Arg Arg Gly Val |      |      |      |
| 1725                                                            | 1730 | 1735 |      |
| tta tcc acc act ggc cat tcc acg aat ttt gtg att gcc atg act ctt |      |      | 5343 |
| Leu Ser Thr Thr Gly His Ser Thr Asn Phe Val Ile Ala Met Thr Leu |      |      |      |
| 1740                                                            | 1745 | 1750 |      |
| ccc tct gac caa ccc aag gaa cac tgg att gga cga ggt gta gca ctg |      |      | 5391 |
| Pro Ser Asp Gln Pro Lys Glu His Trp Ile Gly Arg Gly Val Ala Leu |      |      |      |

1755

1760

1765

tta tgt caa ctt aat tca taa cc agaagacatc atttccttgt tcctatttct 5444  
 Leu Cys Gln Leu Asn Ser \*  
 1770 1775

tgttggctgg ctgagtagag aaagcatatt attttactac ttaaacccttt ttttttgttt 5504  
 gtttaaatac atttgactaa agttataatt atgaatttac ttatgagcaa atgcagctaa 5564  
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 Met Ala Lys Ser Lys Asn His Thr Thr  
 1 5  
 cac aac cag tcc cga aaa tgg cac aga aat ggt atc aag aaa ccc cga 161  
 His Asn Gln Ser Arg Lys Trp His Arg Asn Gly Ile Lys Lys Pro Arg  
 10 15 20 25  
 tca caa aga tac gaa tct ctt aag ggg gtg gac ccc aag ttc ctg agg 209  
 Ser Gln Arg Tyr Glu Ser Leu Lys Gly Val Asp Pro Lys Phe Leu Arg  
 30 35 40  
 aac atg cgc ttt gcc aag aag cac aac aaa aag ggc cta aag aag atg 257  
 Asn Met Arg Phe Ala Lys Lys His Asn Lys Lys Gly Leu Lys Lys Met  
 45 50 55  
 cag gcc aac aat gcc aag gcc atg agt gca cgt gcc gag gct atc aag 305  
 Gln Ala Asn Asn Ala Lys Ala Met Ser Ala Arg Ala Glu Ala Ile Lys  
 60 65 70  
 gcc ctc gta aag ccc aag gag gtt aag ccc aag atc cca aag ggt gtc 353  
 Ala Leu Val Lys Pro Lys Glu Val Lys Pro Lys Ile Pro Lys Gly Val  
 75 80 85  
 agc cgc aag ctc gat cga ctt gcc tac att gcc cac ccc aag ctt ggg 401  
 Ser Arg Lys Leu Asp Arg Leu Ala Tyr Ile Ala His Pro Lys Leu Gly  
 90 95 100 105  
 aag cgt gct cgt gcc cgt att gcc aag ggg ctc agg ctg tgc cgg cca 449  
 Lys Arg Ala Arg Ala Arg Ile Ala Lys Gly Leu Arg Leu Cys Arg Pro  
 110 115 120  
 aag gcc aag gcc aag gcc aag gcc aag gcc aag gcc aag gcc cag gcc 497  
 Lys Ala Lys Ala Lys Ala Lys Ala Lys Ala Lys Ala Lys Ala Gln Ala  
 125 130 135

aag gat caa acc aag gcc cag gct gca gcc cca gct tca gtt cca gct 545  
Lys Asp Gln Thr Lys Ala Gln Ala Ala Pro Ala Ser Val Pro Ala  
140 145 150  
cag gct ccc aaa cgt acc cag gcc cct aca aag gct tca gag tag ata 593  
Gln Ala Pro Lys Arg Thr Gln Ala Pro Thr Lys Ala Ser Glu \*  
155 160 165  
tctctgccaa catgaggaca gaaggactgg tgcgaccccc ccccccgcc cctgggctac 653  
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1 5 10 15  
ttc ctc ttc caa ctg ctt cag ctg ctg ctg ccg acg acg acc gcg ggg 96  
Phe Leu Phe Gln Leu Leu Gln Leu Leu Leu Pro Thr Thr Thr Ala Gly  
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gga ggc ggg cag ggg ccc atg ccc agg gtc aga tac tat gca ggg gat 144  
Gly Gly Gly Gln Gly Pro Met Pro Arg Val Arg Tyr Tyr Ala Gly Asp  
35 40 45  
gaa cgt agg gca ctt agc ttc ttc cac cag aag ggc ctc cag gat ttt 192  
Glu Arg Arg Ala Leu Ser Phe Phe His Gln Lys Gly Leu Gln Asp Phe  
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gac act ctg ctc ctg agt ggt gat gga aat act ctc tac gtg ggg gct 240  
Asp Thr Leu Leu Leu Ser Gly Asp Gly Asn Thr Leu Tyr Val Gly Ala  
65 70 75 80  
cga gaa gcc att ctg gcc ttg gat atc cag gat cca ggg gtc ccc agg 288  
Arg Glu Ala Ile Leu Ala Leu Asp Ile Gln Asp Pro Gly Val Pro Arg  
85 90 95  
cta aag aac atg ata ccg tgg cca gcc agt gac aga aaa aag agt gaa 336  
Leu Lys Asn Met Ile Pro Trp Pro Ala Ser Asp Arg Lys Lys Ser Glu  
100 105 110  
tgt gcc ttt aag aag aag agc aat gag aca cag tgt ttc aac ttc atc 384  
Cys Ala Phe Lys Lys Lys Ser Asn Glu Thr Gln Cys Phe Asn Phe Ile  
115 120 125  
cgt gtc ctg gtt tct tac aat gtc acc cat ctc tac acc tgc ggc acc 432  
Arg Val Leu Val Ser Tyr Asn Val Thr His Leu Tyr Thr Cys Gly Thr  
130 135 140

|                                                                 |      |
|-----------------------------------------------------------------|------|
| ttc gcc ttc agc cct gct tgt acc ttc att gaa ctt caa gat tcc tac | 480  |
| Phe Ala Phe Ser Pro Ala Cys Thr Phe Ile Glu Leu Gln Asp Ser Tyr |      |
| 145 150 155 160                                                 |      |
| ctg ttg ccc atc tcg gag gac aag gtc atg gag gga aaa ggc caa agc | 528  |
| Leu Leu Pro Ile Ser Glu Asp Lys Val Met Glu Gly Lys Gly Gln Ser |      |
| 165 170 175                                                     |      |
| ccc ttt gac ccc gct cac aag cat acg gct gtc ttg gtg gat ggg atg | 576  |
| Pro Phe Asp Pro Ala His Lys His Thr Ala Val Leu Val Asp Gly Met |      |
| 180 185 190                                                     |      |
| ctc tat tct ggt act atg aac aac ttc ctg ggc agt gag ccc atc ctg | 624  |
| Leu Tyr Ser Gly Thr Met Asn Asn Phe Leu Gly Ser Glu Pro Ile Leu |      |
| 195 200 205                                                     |      |
| atg cgc aca ctg gga tcc cag cct gtc ctc aag acc gac aac ttc ctc | 672  |
| Met Arg Thr Leu Gly Ser Gln Pro Val Leu Lys Thr Asp Asn Phe Leu |      |
| 210 215 220                                                     |      |
| cgc tgg ctg cat cat gac gcc tcc ttt gtg gca gcc atc cct tcg acc | 720  |
| Arg Trp Leu His His Asp Ala Ser Phe Val Ala Ala Ile Pro Ser Thr |      |
| 225 230 235 240                                                 |      |
| cag gtc gtc tac ttc ttc ttc gag gag aca gcc agc gag ttt gac ttc | 768  |
| Gln Val Val Tyr Phe Phe Phe Glu Glu Thr Ala Ser Glu Phe Asp Phe |      |
| 245 250 255                                                     |      |
| ttt gag agg ctc cac aca tcg cgg gtg gct aga gtc tgc aag aat gac | 816  |
| Phe Glu Arg Leu His Thr Ser Arg Val Ala Arg Val Cys Lys Asn Asp |      |
| 260 265 270                                                     |      |
| gtg ggc ggc gaa aag ctg ctg cag aag aag tgg acc acc ttc ctg aag | 864  |
| Val Gly Gly Glu Lys Leu Leu Gln Lys Lys Trp Thr Thr Phe Leu Lys |      |
| 275 280 285                                                     |      |
| gcc cag ctg ctc tgc acc cag ccg ggg cag ctg ccc ttc aac gtc atc | 912  |
| Ala Gln Leu Leu Cys Thr Gln Pro Gly Gln Leu Pro Phe Asn Val Ile |      |
| 290 295 300                                                     |      |
| cgc cac gcg gtc ctg ctc ccc gcc gat tct ccc aca gct ccc cac atc | 960  |
| Arg His Ala Val Leu Leu Pro Ala Asp Ser Pro Thr Ala Pro His Ile |      |
| 305 310 315 320                                                 |      |
| tac gca gtc ttc acc tcc cag tgg cag gtt ggc ggg acc agg agc tct | 1008 |
| Tyr Ala Val Phe Thr Ser Gln Trp Gln Val Gly Gly Thr Arg Ser Ser |      |
| 325 330 335                                                     |      |
| gcg gtt tgt gcc ttc tct ctc ttg gac att gaa cgt gtc ttt aag ggg | 1056 |
| Ala Val Cys Ala Phe Ser Leu Leu Asp Ile Glu Arg Val Phe Lys Gly |      |
| 340 345 350                                                     |      |
| aaa tac aaa gag ttg aac aaa gaa act tca cgc tgg act act tat agg | 1104 |
| Lys Tyr Lys Glu Leu Asn Lys Glu Thr Ser Arg Trp Thr Thr Tyr Arg |      |
| 355 360 365                                                     |      |
| ggc cct gag acc aac ccc cgg cca gcc agt tgc tca gtg ggc ccc tcc | 1152 |
| Gly Pro Glu Thr Asn Pro Arg Pro Gly Ser Cys Ser Val Gly Pro Ser |      |
| 370 375 380                                                     |      |
| tct gat aag gcc ctg acc ttc atg aag gac cat ttc ctg atg gat gag | 1200 |
| Ser Asp Lys Ala Leu Thr Phe Met Lys Asp His Phe Leu Met Asp Glu |      |
| 385 390 395 400                                                 |      |

|                                                                 |      |
|-----------------------------------------------------------------|------|
| caa gtg gtg ggg acg ccc ctg ctg gtg aaa tct ggc gtg gag tat aca | 1248 |
| Gln Val Val Gly Thr Pro Leu Leu Val Lys Ser Gly Val Glu Tyr Thr |      |
| 405 410 415                                                     |      |
| cgg ctt gca gtg gag aca gcc cag ggc ctt gat ggg cac agc cat ctt | 1296 |
| Arg Leu Ala Val Glu Thr Ala Gln Gly Leu Asp Gly His Ser His Leu |      |
| 420 425 430                                                     |      |
| gtc atg tac ctg gga acc acc aca ggg tcg ctc cac aag gct gtg gta | 1344 |
| Val Met Tyr Leu Gly Thr Thr Thr Gly Ser Leu His Lys Ala Val Val |      |
| 435 440 445                                                     |      |
| agt ggg gac agc agt gct cat ctg gtg gaa gag att cag ctg ttc cct | 1392 |
| Ser Gly Asp Ser Ser Ala His Leu Val Glu Glu Ile Gln Leu Phe Pro |      |
| 450 455 460                                                     |      |
| gac cct gaa cct gtt cgc aac ctg cag ctg gcc ccc acc cag ggt gca | 1440 |
| Asp Pro Glu Pro Val Arg Asn Leu Gln Leu Ala Pro Thr Gln Gly Ala |      |
| 465 470 475 480                                                 |      |
| gtg ttt gta ggc ttc tca gga ggt gtc tgg agg gtg ccc cga gcc aac | 1488 |
| Val Phe Val Gly Phe Ser Gly Gly Val Trp Arg Val Pro Arg Ala Asn |      |
| 485 490 495                                                     |      |
| tgt agt gtc tat gag agc tgt gtg gac tgt gtc ctt gcc cgg gac ccc | 1536 |
| Cys Ser Val Tyr Glu Ser Cys Val Asp Cys Val Leu Ala Arg Asp Pro |      |
| 500 505 510                                                     |      |
| cac tgt gcc tgg gac cct gag tcc cga acc tgt tgc ctc ctg tct gcc | 1584 |
| His Cys Ala Trp Asp Pro Glu Ser Arg Thr Cys Cys Leu Leu Ser Ala |      |
| 515 520 525                                                     |      |
| ccc aac ctg aac tcc tgg aag cag gac atg gag cgg ggg aac cca gag | 1632 |
| Pro Asn Leu Asn Ser Trp Lys Gln Asp Met Glu Arg Gly Asn Pro Glu |      |
| 530 535 540                                                     |      |
| tgg gca tgt gcc agt ggc ccc atg agc agg agc ctt cgg cct cag agc | 1680 |
| Trp Ala Cys Ala Ser Gly Pro Met Ser Arg Ser Leu Arg Pro Gln Ser |      |
| 545 550 555 560                                                 |      |
| cgc ccg caa atc att aaa gaa gtc ctg gct gtc cct aac tcc atc ctg | 1728 |
| Arg Pro Gln Ile Ile Lys Glu Val Leu Ala Val Pro Asn Ser Ile Leu |      |
| 565 570 575                                                     |      |
| gag ctc ccc tgc ccc cac ctg tca gcc ttg gcc tct tat tat tgg agt | 1776 |
| Glu Leu Pro Cys Pro His Leu Ser Ala Leu Ala Ser Tyr Tyr Trp Ser |      |
| 580 585 590                                                     |      |
| cat ggc cca gca gca gtc cca gaa gcc tct tcc act gtc tac aat ggc | 1824 |
| His Gly Pro Ala Ala Val Pro Glu Ala Ser Ser Thr Val Tyr Asn Gly |      |
| 595 600 605                                                     |      |
| tcc ctc ttg ctg ata gtg cag gat gga gtt ggg ggt ctc tac cag tgc | 1872 |
| Ser Leu Leu Leu Ile Val Gln Asp Gly Val Gly Gly Leu Tyr Gln Cys |      |
| 610 615 620                                                     |      |
| tgg gca act gag aat ggc ttt tca tac cct gtg atc tcc tac tgg gtg | 1920 |
| Trp Ala Thr Glu Asn Gly Phe Ser Tyr Pro Val Ile Ser Tyr Trp Val |      |
| 625 630 635 640                                                 |      |
| gac agc cag gac cag acc ctg gcc ctg gat cct gaa ctg gca ggc atc | 1968 |
| Asp Ser Gln Asp Gln Thr Leu Ala Leu Asp Pro Glu Leu Ala Gly Ile |      |
| 645 650 655                                                     |      |

ccc cgg gag cat gtg aag gtc ccg ttg acc agg gtc agt ggt ggg gcc 2016  
 Pro Arg Glu His Val Lys Val Pro Leu Thr Arg Val Ser Gly Gly Ala  
 660 665 670

gcc ctg gct gcc cag cag tcc tac tgg ccc cac ttt gtc act gtc act 2064  
 Ala Leu Ala Ala Gln Gln Ser Tyr Trp Pro His Phe Val Thr Val Thr  
 675 680 685

gtc ctc ttt gcc tta gtg ctt tca gga gcc ctc atc atc ctc gtg gcc 2112  
 Val Leu Phe Ala Leu Val Leu Ser Gly Ala Leu Ile Ile Leu Val Ala  
 690 695 700

tcc cca ttg aga gca ctc cgg gct cgg ggc aag gtt cag ggc tgt gag 2160  
 Ser Pro Leu Arg Ala Leu Arg Ala Arg Gly Lys Val Gln Gly Cys Glu  
 705 710 715 720

acc ctg cgc cct ggg gag aag gcc ccg tta agc aga gag caa cac ctc 2208  
 Thr Leu Arg Pro Gly Glu Lys Ala Pro Leu Ser Arg Glu Gln His Leu  
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 Gln Ser Pro Lys Glu Cys Arg Thr Ser Ala Ser Asp Val Asp Ala Asp  
 740 745 750

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 Asn Asn Cys Leu Gly Thr Glu Val Ala \*  
 755 760

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gatgacactc agcagggtga tgcacagcag tctgcctccc ctatgggact cccttctacc 2487

aagcacatga gctctctaac aggggtggggg ctacccccag acctgctcct aactgatata 2547

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cttgcttcag ttggggcaga ctctgatccc ttctgccttg gcagaatggc aggggtaatc 2907

tgagccttct tcaactcctt accctagctg accccttcac ctctccccct cccttttctt 2967

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&lt;221&gt; misc\_feature

&lt;222&gt; (1) ... (1557)

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| cccgtgggaa gcctgggtccc cacgctggag cagccgcagg tgcccgcgaa ggtgcgacaa  | 120  |
| cctgaagggtc ccgaaagcag cccaagtccg gccggggccg tggagaaggc ggcggggcgca | 180  |
| ggcctggagc cctcgagcaa gaaaaagccg ccttcgcctc gccccgggtc cccgcgcgtg   | 240  |
| ccgccgctca gcctgggcta cgggggtctgc cccgagccgc cgtcaccggg ccctgccttg  | 300  |
| gtcaagctgc cccggaatgg cgaggcgccc ggggctgagc ctgcgcccag cgcctggggc   | 360  |
| cccatggagc tgcaggtaga tgtgcgcgtg aagcccgtgg ggcgggccgg tggcagcagc   | 420  |
| acgccatcgc ccaggccctc cacgcgcttc ctcaagggtc cggtgcccga gtcccctgcc   | 480  |
| ttctcccgc acgcggaccc ggcgcaccag ctcttgcctc ggcaccatc ccagggcggc     | 540  |
| acgtggggcc gccgctcgcc gctgggtgca gcccgagcgg agagcggctg cgacgcagag   | 600  |
| ggccggggcca gccccgcgga aggaagcgcc ggctccccgg gctccccac gtgctgccgc   | 660  |
| tgcaaggagc tggggctgga gaaggaggat gcggcgctgt tgcccgcgc ggggttgagc    | 720  |
| ggcgacgaga agctgccccg ggccgtaacg cttacggggc tacccatgta cgtgaagtcc   | 780  |
| ctgtactggg ccctggcggt c atg gct gtg ctg ctg gca gtc tct ggg gtt     | 831  |
| Met Ala Val Leu Leu Ala Val Ser Gly Val                             |      |
| 1 5 10                                                              |      |
| gtc att gtg gtc ctg gcc tca aga gca gga gcc aga tgc cag cag tgc     | 879  |
| Val Ile Val Val Leu Ala Ser Arg Ala Gly Ala Arg Cys Gln Gln Cys     |      |
| 15 20 25                                                            |      |
| ccc cca ggc tgg gtg ttg tcc gag gag cac tgt tac tac ttc tct gca     | 927  |
| Pro Pro Gly Trp Val Leu Ser Glu Glu His Cys Tyr Tyr Phe Ser Ala     |      |
| 30 35 40                                                            |      |
| gaa gcg cag gcc tgg gaa gcc agc cag gct ttc tgc tca gcc tac cac     | 975  |
| Glu Ala Gln Ala Trp Glu Ala Ser Gln Ala Phe Cys Ser Ala Tyr His     |      |
| 45 50 55                                                            |      |
| gct acc ctg ccc ctg cta agc cac acc cag gac ttc ctg ggc aga tac     | 1023 |
| Ala Thr Leu Pro Leu Leu Ser His Thr Gln Asp Phe Leu Gly Arg Tyr     |      |
| 60 65 70                                                            |      |
| cca gtc tcc agg cac tcc tgg gtg ggg gcc tgg cga ggc ccc cag ggc     | 1071 |
| Pro Val Ser Arg His Ser Trp Val Gly Ala Trp Arg Gly Pro Gln Gly     |      |
| 75 80 85 90                                                         |      |
| tgg cac tgg atc gac gag gcc cca ctg ccg ccc cag cta ctg cct gag     | 1119 |
| Trp His Trp Ile Asp Glu Ala Pro Leu Pro Pro Gln Leu Leu Pro Glu     |      |
| 95 100 105                                                          |      |
| gac ggc gag gac aat ctg gat atc aac tgt ggg gcc ctg gag gaa ggc     | 1167 |
| Asp Gly Glu Asp Asn Leu Asp Ile Asn Cys Gly Ala Leu Glu Glu Gly     |      |

| 110                                                                | 115 | 120 |      |
|--------------------------------------------------------------------|-----|-----|------|
| acg ctg gtg gct gca aac tgc agc act cca aga ccc tgg gtc tgt gcc    |     |     | 1215 |
| Thr Leu Val Ala Ala Asn Cys Ser Thr Pro Arg Pro Trp Val Cys Ala    |     |     |      |
| 125                                                                | 130 | 135 |      |
| aag ggg acc cag tga tctgggctct gcctggctcct cagcctgcca ggcagatgca   |     |     | 1270 |
| Lys Gly Thr Gln *                                                  |     |     |      |
| 140                                                                |     |     |      |
| gcacccctta caggggaggc cagttgagag cttgggcagc ctcttcctgg acccagttat  |     |     | 1330 |
| ccaggtcttc atgctctgct caagggggcc acatgagcga gcctaggagc tggacttcaa  |     |     | 1390 |
| cccaggaaga tgcattccgag ggaaaggaga ttttctatgg cctcaggcct gagtgccaat |     |     | 1450 |
| attagtctcc agcttctgtg gatgatcggt ttgatgacat tngatgggtt gtttagcatt  |     |     | 1510 |
| tctgtgcctt ggtttcatta naatgacaat ttccccctaa aagaaaa                |     |     | 1557 |

<210> 3943  
 <211> 380  
 <212> PRT  
 <213> Homo sapiens

<400> 3943

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Ala | Val | Ala | Leu | Val | Arg | Glu | Arg | Asp | Leu | Ser | Phe | Pro | Gly | Val | 1   | 5   | 10  | 15  |
| Gly | Asp | Ala | Val | Val | Asn | Pro | Thr | Arg | Trp | His | Leu | Pro | Ala | Gln | Pro | 20  | 25  | 30  |     |
| Glu | Met | Leu | Tyr | Glu | Gly | Gly | Glu | Gly | Arg | Met | Glu | Thr | Leu | Lys | Asp | 35  | 40  | 45  |     |
| Lys | Thr | Leu | Gln | Glu | Leu | Glu | Glu | Leu | Gln | Asn | Asp | Ser | Glu | Ala | Ile | 50  | 55  | 60  |     |
| Asp | Gln | Leu | Ala | Leu | Glu | Ser | Pro | Glu | Val | Gln | Asp | Leu | Gln | Leu | Glu | 65  | 70  | 75  | 80  |
| Arg | Glu | Met | Ala | Leu | Ala | Thr | Asn | Arg | Ser | Leu | Ala | Glu | Arg | Asn | Leu | 85  | 90  | 95  |     |
| Glu | Phe | Gln | Gly | Pro | Leu | Glu | Ile | Ser | Arg | Ser | Asn | Leu | Ser | Asp | Arg | 100 | 105 | 110 |     |
| Tyr | Gln | Glu | Leu | Arg | Lys | Leu | Val | Glu | Arg | Cys | Gln | Glu | Gln | Lys | Ala | 115 | 120 | 125 |     |
| Lys | Leu | Glu | Lys | Phe | Ser | Ser | Ala | Leu | Gln | Pro | Gly | Thr | Leu | Leu | Asp | 130 | 135 | 140 |     |
| Leu | Leu | Gln | Val | Glu | Gly | Met | Lys | Ile | Glu | Glu | Glu | Ser | Glu | Ala | Met | 145 | 150 | 155 | 160 |
| Ala | Glu | Lys | Phe | Leu | Glu | Gly | Glu | Val | Pro | Leu | Glu | Thr | Phe | Leu | Glu | 165 | 170 | 175 |     |
| Asn | Phe | Ser | Ser | Met | Arg | Met | Leu | Ser | His | Leu | Arg | Arg | Val | Arg | Val | 180 | 185 | 190 |     |
| Glu | Lys | Leu | Gln | Glu | Val | Val | Arg | Lys | Pro | Arg | Ala | Ser | Gln | Glu | Leu | 195 | 200 | 205 |     |
| Ala | Gly | Asp | Ala | Pro | Pro | Pro | Arg | Pro | Pro | Pro | Pro | Val | Arg | Pro | Val | 210 | 215 | 220 |     |
| Pro | Gln | Gly | Thr | Pro | Pro | Val | Val | Glu | Glu | Gln | Pro | Gln | Pro | Pro | Leu | 225 | 230 | 235 | 240 |
| Ala | Met | Pro | Pro | Tyr | Pro | Leu | Pro | Tyr | Ser | Pro | Ser | Pro | Ser | Leu | Pro | 245 | 250 | 255 |     |
| Val | Gly | Pro | Thr | Ala | His | Gly | Ala | Leu | Pro | Pro | Ala | Pro | Phe | Pro | Val | 260 | 265 | 270 |     |
| Val | Ser | Gln | Pro | Ser | Phe | Tyr | Ser | Gly | Pro | Leu | Gly | Pro | Thr | Tyr | Pro | 275 | 280 | 285 |     |

Ala Ala Gln Leu Gly Pro Arg Val Pro Pro Thr Leu Asn Leu Trp Pro  
 290 295 300  
 Ser His Arg Arg Asp Ser Arg Val Asn Trp Lys Trp Arg Trp Cys Ser  
 305 310 315 320  
 Leu Trp Thr Cys Val Gly Thr Gln Arg Pro Trp Arg Asp Lys Ala Leu  
 325 330 335  
 Gly Gly Val Thr Gly His Gly Thr Cys Trp Pro Ser Gly Gln Arg Ser  
 340 345 350  
 Ser Trp Lys Pro Leu Leu Ser Val Pro Gly Cys Ser Gly Ala Ser Gln  
 355 360 365  
 Ala Gly Val Gln His Leu Ser Pro Val Ser Val \*
 370 375 379

<210> 3944  
 <211> 861  
 <212> PRT  
 <213> Homo sapiens

<400> 3944  
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 Val Pro Arg Arg Pro Gly Tyr Gly Ala Met Gly Lys Pro Ile Lys Leu  
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 Leu Ala Asn Cys Phe Gln Val Glu Ile Pro Lys Ile Asp Val Tyr Leu  
 35 40 45  
 Tyr Glu Val Asp Ile Lys Pro Asp Lys Cys Pro Arg Arg Val Asn Arg  
 50 55 60  
 Glu Val Val Asp Ser Met Val Gln His Phe Lys Val Thr Ile Phe Gly  
 65 70 75 80  
 Asp Arg Arg Pro Val Tyr Asp Gly Lys Arg Ser Leu Tyr Thr Ala Asn  
 85 90 95  
 Pro Leu Pro Val Ala Thr Thr Gly Val Asp Leu Asp Val Thr Leu Pro  
 100 105 110  
 Gly Glu Gly Gly Lys Asp Arg Pro Phe Lys Val Ser Ile Lys Phe Val  
 115 120 125  
 Ser Arg Val Ser Trp His Leu Leu His Glu Val Leu Thr Gly Arg Thr  
 130 135 140  
 Leu Pro Glu Pro Leu Glu Leu Asp Lys Pro Ile Ser Thr Asn Pro Val  
 145 150 155 160  
 His Ala Val Asp Val Val Leu Arg His Leu Pro Ser Met Lys Tyr Thr  
 165 170 175  
 Pro Val Gly Arg Ser Phe Phe Ser Ala Pro Glu Gly Tyr Asp His Pro  
 180 185 190  
 Leu Gly Gly Gly Arg Glu Val Trp Phe Gly Phe His Gln Ser Val Arg  
 195 200 205  
 Pro Ala Met Trp Lys Met Met Leu Asn Ile Asp Val Ser Ala Thr Ala  
 210 215 220  
 Phe Tyr Lys Ala Gln Pro Val Ile Gln Phe Met Cys Glu Val Leu Asp  
 225 230 235 240  
 Ile His Asn Ile Asp Glu Gln Pro Arg Pro Leu Thr Asp Ser His Arg  
 245 250 255  
 Val Lys Phe Thr Lys Glu Ile Lys Gly Leu Lys Val Glu Val Thr His  
 260 265 270  
 Cys Gly Thr Met Arg Arg Lys Tyr Arg Val Cys Asn Val Thr Arg Arg  
 275 280 285  
 Pro Ala Ser His Gln Thr Phe Pro Leu Gln Leu Glu Asn Gly Gln Thr  
 290 295 300  
 Val Glu Arg Thr Val Ala Gln Tyr Phe Arg Glu Lys Tyr Thr Leu Gln  
 305 310 315 320  
 Leu Lys Tyr Pro His Leu Pro Cys Leu Gln Val Gly Gln Glu Gln Lys  
 325 330 335

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| His | Thr | Tyr | Leu | Pro | Leu | Glu | Val | Cys | Asn | Ile | Val | Ala | Gly | Gln | Arg | 340 | 345 | 350 |
| Cys | Ile | Lys | Lys | Leu | Thr | Asp | Asn | Gln | Thr | Ser | Thr | Met | Ile | Lys | Ala | 355 | 360 | 365 |
| Thr | Ala | Arg | Ser | Ala | Pro | Asp | Arg | Gln | Glu | Glu | Ile | Ser | Arg | Leu | Val | 370 | 375 | 380 |
| Arg | Ser | Ala | Asn | Tyr | Glu | Thr | Asp | Pro | Phe | Val | Gln | Glu | Phe | Gln | Phe | 385 | 390 | 395 |
| Lys | Val | Arg | Asp | Glu | Met | Ala | His | Val | Thr | Gly | Arg | Val | Leu | Pro | Ala | 405 | 410 | 415 |
| Pro | Met | Leu | Gln | Tyr | Gly | Gly | Arg | Asn | Arg | Thr | Val | Ala | Thr | Pro | Ser | 420 | 425 | 430 |
| His | Gly | Val | Trp | Asp | Met | Arg | Gly | Lys | Gln | Phe | His | Thr | Gly | Val | Glu | 435 | 440 | 445 |
| Ile | Lys | Met | Trp | Ala | Ile | Ala | Cys | Phe | Ala | Thr | Gln | Arg | Gln | Cys | Arg | 450 | 455 | 460 |
| Glu | Glu | Ile | Leu | Lys | Gly | Phe | Thr | Asp | Gln | Leu | Arg | Lys | Ile | Ser | Lys | 465 | 470 | 475 |
| Asp | Ala | Gly | Met | Pro | Ile | Gln | Gly | Gln | Pro | Cys | Phe | Cys | Lys | Tyr | Ala | 485 | 490 | 495 |
| Gln | Gly | Ala | Asp | Ser | Val | Glu | Pro | Met | Phe | Arg | His | Leu | Lys | Asn | Thr | 500 | 505 | 510 |
| Tyr | Ser | Gly | Leu | Gln | Leu | Ile | Ile | Val | Ile | Leu | Pro | Gly | Lys | Thr | Pro | 515 | 520 | 525 |
| Val | Tyr | Ala | Glu | Val | Lys | Arg | Val | Gly | Asp | Thr | Leu | Leu | Gly | Met | Ala | 530 | 535 | 540 |
| Thr | Gln | Cys | Val | Gln | Val | Lys | Asn | Val | Ile | Lys | Thr | Ser | Pro | Gln | Thr | 545 | 550 | 555 |
| Leu | Ser | Asn | Leu | Cys | Leu | Lys | Ile | Asn | Val | Lys | Leu | Gly | Gly | Ile | Asn | 565 | 570 | 575 |
| Asn | Ile | Leu | Val | Pro | His | Gln | Arg | Pro | Ser | Val | Phe | Gln | Gln | Pro | Val | 580 | 585 | 590 |
| Ile | Phe | Leu | Gly | Ala | Asp | Val | Thr | His | Pro | Pro | Ala | Gly | Asp | Gly | Lys | 595 | 600 | 605 |
| Lys | Pro | Ser | Ile | Ala | Ala | Val | Val | Gly | Ser | Met | Asp | Ala | His | Pro | Ser | 610 | 615 | 620 |
| Arg | Tyr | Cys | Ala | Thr | Val | Arg | Val | Gln | Arg | Pro | Arg | Gln | Glu | Ile | Ile | 625 | 630 | 635 |
| Gln | Asp | Leu | Ala | Ser | Met | Val | Arg | Glu | Leu | Leu | Ile | Gln | Phe | Tyr | Lys | 645 | 650 | 655 |
| Ser | Thr | Arg | Phe | Lys | Pro | Thr | Arg | Ile | Ile | Phe | Tyr | Arg | Asp | Gly | Val | 660 | 665 | 670 |
| Ser | Glu | Gly | Gln | Phe | Arg | Gln | Val | Leu | Tyr | Tyr | Glu | Leu | Leu | Ala | Ile | 675 | 680 | 685 |
| Arg | Glu | Ala | Cys | Ile | Ser | Leu | Glu | Lys | Asp | Tyr | Gln | Pro | Gly | Ile | Thr | 690 | 695 | 700 |
| Tyr | Ile | Val | Val | Gln | Lys | Arg | His | His | Thr | Arg | Leu | Phe | Cys | Ala | Asp | 705 | 710 | 715 |
| Arg | Thr | Glu | Arg | Val | Gly | Arg | Ser | Gly | Asn | Ile | Pro | Ala | Gly | Thr | Thr | 725 | 730 | 735 |
| Val | Asp | Thr | Asp | Ile | Thr | His | Pro | Tyr | Glu | Phe | Asp | Phe | Tyr | Leu | Cys | 740 | 745 | 750 |
| Ser | His | Ala | Gly | Ile | Gln | Gly | Thr | Ser | Arg | Pro | Ser | His | Tyr | His | Val | 755 | 760 | 765 |
| Leu | Trp | Asp | Asp | Asn | Cys | Phe | Thr | Ala | Asp | Glu | Leu | Gln | Leu | Leu | Thr | 770 | 775 | 780 |
| Tyr | Gln | Leu | Cys | His | Thr | Tyr | Val | Arg | Cys | Thr | Arg | Ser | Val | Ser | Ile | 785 | 790 | 795 |
| Pro | Ala | Pro | Ala | Tyr | Tyr | Ala | His | Leu | Val | Ala | Phe | Arg | Ala | Arg | Tyr | 805 | 810 | 815 |
| His | Leu | Val | Asp | Lys | Glu | His | Asp | Ser | Ala | Glu | Gly | Ser | His | Val | Ser | 820 | 825 | 830 |
| Gly | Gln | Ser | Asn | Gly | Arg | Asp | Pro | Gln | Ala | Leu | Ala | Lys | Ala | Val | Gln | 835 | 840 | 845 |

Ile His Gln Asp Thr Leu Arg Thr Met Tyr Phe Ala \*  
 850 855 860

<210> 3945  
 <211> 1775  
 <212> PRT  
 <213> Homo sapiens

<400> 3945  
 Met Tyr Glu Asp Phe His Glu Leu Phe Gln Arg Leu Asp Phe Asp Asn  
 1 5 10 15  
 Asp Gly Met Val Glu Ala Asp Asp Leu Arg Ser Leu Met Phe Cys Asp  
 20 25 30  
 Phe His Asp Pro Lys Arg Glu Asp Thr Asn Tyr Arg Glu Ile Ala Asp  
 35 40 45  
 Val Asp Asn Leu Arg Met Ile Val Glu Ile His Leu Glu Glu Tyr Asn  
 50 55 60  
 Asn Ile Ser Lys Lys Pro Met Asn Leu Val Leu Phe Arg Phe Ala Ile  
 65 70 75 80  
 Glu His Ile Ser Arg Ile Ser Arg Ile Leu Lys Gln Pro Arg Ser His  
 85 90 95  
 Ala Leu Leu Val Gly Val Gly Gly Ser Gly Arg Gln Ser Val Thr Arg  
 100 105 110  
 Leu Ala Ala His Met Ala Asp Tyr Ser Val Phe Gln Val Glu Ile Ser  
 115 120 125  
 Lys Gly Tyr Asp Thr Thr Glu Trp His Glu Asp Leu Lys Val Ile Leu  
 130 135 140  
 Arg Lys Cys Ala Glu Asp Thr Gln Ile Lys Glu Glu Ser Phe Leu Glu  
 145 150 155 160  
 Asp Val Ser Asn Leu Leu Asn Ala Gly Glu Ile Pro Asn Leu Phe Ala  
 165 170 175  
 Leu Asp Glu Lys Gln Glu Ile Cys Asp Lys Met Arg Gln Leu Asp Arg  
 180 185 190  
 Gln Arg Asp Lys Thr Lys Gln Thr Asp Gly Ser Pro Ile Ala Leu Phe  
 195 200 205  
 Asn Met Phe Ile Asp His Cys Arg Ser Gln Leu His Val Val Leu Ala  
 210 215 220  
 Met Ser Pro Ile Gly Asp Ala Phe Arg Asn Arg Leu Arg Lys Phe Pro  
 225 230 235 240  
 Ala Leu Val Asn Cys Cys Thr Ile Asp Trp Phe Gln Ser Trp Pro Glu  
 245 250 255  
 Asp Ala Leu Gln Ala Val Ala Ser Arg Phe Leu Glu Glu Ile Glu Met  
 260 265 270  
 Ser Glu Glu Ile Arg Asp Gly Cys Ile Asp Met Cys Lys Ser Phe His  
 275 280 285  
 Thr Ser Thr Ile Asp Leu Ser Lys Ser Phe Phe Val Glu Leu Gln Arg  
 290 295 300  
 Tyr Asn Tyr Val Thr Pro Thr Ser Tyr Leu Glu Leu Ile Ser Thr Phe  
 305 310 315 320  
 Lys Leu Leu Leu Glu Lys Lys Arg Ser Glu Val Met Lys Met Lys Lys  
 325 330 335  
 Arg Tyr Glu Val Gly Leu Glu Lys Leu Asp Ser Ala Ser Ser Gln Val  
 340 345 350  
 Ala Thr Met Gln Met Glu Leu Glu Ala Leu His Pro Gln Leu Lys Val  
 355 360 365  
 Ala Ser Lys Glu Val Asp Glu Met Met Ile Met Ile Glu Lys Glu Ser  
 370 375 380  
 Val Glu Val Ala Lys Thr Glu Lys Ile Val Lys Ala Asp Glu Thr Ile  
 385 390 395 400  
 Ala Asn Glu Gln Ala Met Ala Ser Lys Ala Ile Lys Asp Glu Cys Asp  
 405 410 415

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Asp | Leu | Ala | Gly | Ala | Leu | Pro | Ile | Leu | Glu | Ser | Ala | Leu | Ala | Ala |
|     |     |     | 420 |     |     |     |     | 425 |     |     |     |     | 430 |     |     |
| Leu | Asp | Thr | Leu | Thr | Ala | Gln | Asp | Ile | Thr | Val | Val | Lys | Ser | Met | Lys |
|     |     | 435 |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |
| Ser | Pro | Pro | Ala | Gly | Val | Lys | Leu | Val | Met | Glu | Ala | Ile | Cys | Ile | Leu |
|     | 450 |     |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |
| Lys | Gly | Ile | Lys | Ala | Asp | Lys | Ile | Pro | Asp | Pro | Thr | Gly | Ser | Gly | Lys |
| 465 |     |     |     |     | 470 |     |     |     | 475 |     |     |     |     |     | 480 |
| Lys | Ile | Glu | Asp | Phe | Trp | Gly | Pro | Ala | Lys | Arg | Leu | Leu | Gly | Asp | Met |
|     |     |     | 485 |     |     |     |     | 490 |     |     |     |     |     | 495 |     |
| Arg | Phe | Leu | Gln | Ser | Leu | His | Glu | Tyr | Asp | Lys | Asp | Asn | Ile | Pro | Pro |
|     |     | 500 |     |     |     |     | 505 |     |     |     |     |     | 510 |     |     |
| Ala | Tyr | Met | Asn | Ile | Ile | Arg | Lys | Asn | Tyr | Ile | Pro | Asn | Pro | Asp | Phe |
|     | 515 |     |     |     |     |     | 520 |     |     |     |     | 525 |     |     |     |
| Val | Pro | Glu | Lys | Ile | Arg | Asn | Ala | Ser | Thr | Ala | Ala | Glu | Gly | Leu | Cys |
|     | 530 |     |     |     |     | 535 |     |     |     |     | 540 |     |     |     |     |
| Lys | Trp | Val | Ile | Ala | Met | Asp | Ser | Tyr | Asp | Lys | Val | Ala | Lys | Ile | Val |
| 545 |     |     |     |     | 550 |     |     |     |     | 555 |     |     |     |     | 560 |
| Ala | Pro | Lys | Lys | Ile | Lys | Leu | Ala | Ala | Ala | Glu | Gly | Glu | Leu | Lys | Ile |
|     |     |     | 565 |     |     |     |     | 570 |     |     |     |     |     | 575 |     |
| Ala | Met | Asp | Gly | Leu | Arg | Lys | Lys | Gln | Ala | Ala | Leu | Lys | Glu | Val | Gln |
|     |     | 580 |     |     |     |     |     | 585 |     |     |     |     | 590 |     |     |
| Asp | Lys | Leu | Ala | Arg | Leu | Gln | Asp | Thr | Leu | Glu | Leu | Asn | Lys | Gln | Lys |
|     | 595 |     |     |     |     | 600 |     |     |     |     |     | 605 |     |     |     |
| Lys | Ala | Asp | Leu | Glu | Asn | Gln | Val | Asp | Leu | Cys | Ser | Lys | Lys | Leu | Glu |
|     | 610 |     |     |     |     | 615 |     |     |     | 620 |     |     |     |     |     |
| Arg | Ala | Glu | Gln | Leu | Ile | Gly | Gly | Leu | Gly | Gly | Glu | Lys | Thr | Arg | Trp |
| 625 |     |     |     |     | 630 |     |     |     | 635 |     |     |     |     |     | 640 |
| Ser | His | Thr | Ala | Leu | Glu | Leu | Gly | Gln | Leu | Tyr | Ile | Asn | Leu | Thr | Gly |
|     |     |     | 645 |     |     |     |     | 650 |     |     |     |     |     | 655 |     |
| Asp | Ile | Leu | Ile | Ser | Ser | Gly | Val | Val | Ala | Tyr | Leu | Gly | Ala | Phe | Thr |
|     |     | 660 |     |     |     |     |     | 665 |     |     |     |     | 670 |     |     |
| Ser | Thr | Tyr | Arg | Gln | Asn | Gln | Thr | Lys | Glu | Trp | Thr | Thr | Leu | Cys | Lys |
|     | 675 |     |     |     |     |     | 680 |     |     |     |     | 685 |     |     |     |
| Gly | Arg | Asp | Ile | Pro | Cys | Ser | Asp | Asp | Cys | Ser | Leu | Met | Gly | Thr | Leu |
|     | 690 |     |     |     |     | 695 |     |     |     |     | 700 |     |     |     |     |
| Gly | Glu | Ala | Val | Thr | Ile | Arg | Thr | Trp | Asn | Ile | Ala | Gly | Leu | Pro | Ser |
| 705 |     |     |     |     | 710 |     |     |     |     | 715 |     |     |     |     | 720 |
| Asp | Ser | Phe | Ser | Ile | Asp | Asn | Gly | Ile | Ile | Ile | Met | Asn | Ala | Arg | Arg |
|     |     |     | 725 |     |     |     |     | 730 |     |     |     |     |     | 735 |     |
| Trp | Pro | Leu | Met | Ile | Asp | Pro | Gln | Ser | Gln | Ala | Asn | Lys | Trp | Ile | Lys |
|     |     | 740 |     |     |     |     |     | 745 |     |     |     |     | 750 |     |     |
| Asn | Met | Glu | Lys | Ala | Asn | Ser | Leu | Tyr | Val | Ile | Lys | Leu | Ser | Glu | Pro |
|     | 755 |     |     |     |     |     | 760 |     |     |     |     | 765 |     |     |     |
| Asp | Tyr | Val | Arg | Thr | Leu | Glu | Asn | Cys | Ile | Gln | Phe | Gly | Thr | Pro | Val |
|     | 770 |     |     |     |     | 775 |     |     |     |     | 780 |     |     |     |     |
| Leu | Leu | Glu | Asn | Val | Gly | Glu | Glu | Leu | Asp | Pro | Ile | Leu | Glu | Pro | Leu |
| 785 |     |     |     |     | 790 |     |     |     | 795 |     |     |     |     |     | 800 |
| Leu | Leu | Lys | Gln | Thr | Phe | Lys | Gln | Gly | Gly | Ser | Thr | Cys | Ile | Arg | Leu |
|     |     |     | 805 |     |     |     |     | 810 |     |     |     |     |     | 815 |     |
| Gly | Asp | Ser | Thr | Ile | Glu | Tyr | Ala | Pro | Asp | Phe | Arg | Phe | Tyr | Ile | Thr |
|     |     | 820 |     |     |     |     |     | 825 |     |     |     |     | 830 |     |     |
| Thr | Lys | Leu | Arg | Asn | Pro | His | Tyr | Leu | Pro | Glu | Thr | Ser | Val | Lys | Val |
|     | 835 |     |     |     |     |     | 840 |     |     |     |     | 845 |     |     |     |
| Thr | Leu | Leu | Asn | Phe | Met | Ile | Thr | Pro | Glu | Gly | Met | Gln | Asp | Gln | Leu |
|     | 850 |     |     |     |     | 855 |     |     |     |     | 860 |     |     |     |     |
| Leu | Gly | Ile | Val | Val | Ala | Gln | Glu | Arg | Pro | Asp | Leu | Glu | Glu | Glu | Lys |
| 865 |     |     |     |     | 870 |     |     |     | 875 |     |     |     |     |     | 880 |
| Gln | Ala | Leu | Ile | Leu | Gln | Gly | Ala | Glu | Asn | Lys | Arg | Gln | Leu | Lys | Glu |
|     |     |     | 885 |     |     |     |     | 890 |     |     |     |     |     | 895 |     |
| Ile | Glu | Asp | Lys | Ile | Leu | Glu | Val | Leu | Ser | Ser | Ser | Glu | Gly | Asn | Ile |
|     |     | 900 |     |     |     |     |     | 905 |     |     |     |     | 910 |     |     |
| Leu | Glu | Asp | Glu | Thr | Ala | Ile | Lys | Ile | Leu | Ser | Ser | Ser | Lys | Ala | Leu |
|     |     | 915 |     |     |     |     | 920 |     |     |     |     |     | 925 |     |     |



|      |      |     |      |      |      |      |      |      |     |      |      |      |      |      |     |
|------|------|-----|------|------|------|------|------|------|-----|------|------|------|------|------|-----|
| Ala  | Asn  | Glu | Ile  | Ser  | Gln  | Lys  | Gln  | Glu  | Val | Ala  | Glu  | Glu  | Thr  | Glu  | Lys |
| 930  |      |     |      |      |      | 935  |      |      |     |      | 940  |      |      |      |     |
| Lys  | Ile  | Asp | Thr  | Thr  | Arg  | Met  | Gly  | Tyr  | Arg | Pro  | Ile  | Ala  | Ile  | His  | Ser |
| 945  |      |     |      |      | 950  |      |      |      |     | 955  |      |      |      |      | 960 |
| Ser  | Ile  | Leu | Phe  | Phe  | Ser  | Leu  | Ala  | Asp  | Leu | Ala  | Asn  | Ile  | Glu  | Pro  | Met |
|      |      |     |      | 965  |      |      |      |      | 970 |      |      |      |      | 975  |     |
| Tyr  | Gln  | Tyr | Ser  | Leu  | Thr  | Trp  | Phe  | Ile  | Asn | Leu  | Phe  | Ile  | Leu  | Ser  | Ile |
|      |      |     | 980  |      |      |      |      | 985  |     |      |      |      | 990  |      |     |
| Glu  | Asn  | Ser | Glu  | Lys  | Ser  | Glu  | Ile  | Leu  | Ala | Lys  | Arg  | Leu  | Gln  | Ile  | Leu |
|      | 995  |     |      |      |      | 1000 |      |      |     |      | 1005 |      |      |      |     |
| Lys  | Asp  | His | Phe  | Thr  | Tyr  | Ser  | Leu  | Tyr  | Val | Asn  | Val  | Cys  | Arg  | Ser  | Leu |
| 1010 |      |     |      |      | 1015 |      |      |      |     | 1020 |      |      |      |      |     |
| Phe  | Glu  | Lys | Asp  | Lys  | Leu  | Phe  | Ser  | Phe  | Cys | Leu  | Thr  | Ile  | Asn  | Leu  |     |
| 1025 |      |     |      | 1030 |      |      |      | 1035 |     |      |      |      |      | 1040 |     |
| Leu  | Leu  | His | Glu  | Arg  | Ala  | Ile  | Asn  | Lys  | Ala | Glu  | Trp  | Arg  | Phe  | Leu  | Leu |
|      |      |     | 1045 |      |      |      |      | 1050 |     |      |      |      | 1055 |      |     |
| Thr  | Gly  | Gly | Ile  | Gly  | Leu  | Asp  | Asn  | Pro  | Tyr | Ala  | Asn  | Pro  | Cys  | Thr  | Trp |
|      | 1060 |     |      |      |      |      | 1065 |      |     |      |      | 1070 |      |      |     |
| Leu  | Pro  | Gln | Lys  | Ser  | Trp  | Asp  | Glu  | Ile  | Cys | Arg  | Leu  | Asp  | Asp  | Leu  | Pro |
|      | 1075 |     |      |      |      | 1080 |      |      |     |      | 1085 |      |      |      |     |
| Ala  | Phe  | Lys | Thr  | Ile  | Arg  | Arg  | Glu  | Phe  | Met | Arg  | Leu  | Lys  | Asp  | Gly  | Trp |
| 1090 |      |     |      |      | 1095 |      |      |      |     | 1100 |      |      |      |      |     |
| Lys  | Lys  | Val | Tyr  | Asp  | Ser  | Leu  | Glu  | Pro  | His | His  | Glu  | Val  | Phe  | Pro  | Glu |
| 1105 |      |     |      | 1110 |      |      |      | 1115 |     |      |      |      |      | 1120 |     |
| Glu  | Trp  | Glu | Asp  | Lys  | Ala  | Asn  | Glu  | Phe  | Gln | Arg  | Met  | Leu  | Ile  | Ile  | Arg |
|      |      |     | 1125 |      |      |      |      | 1130 |     |      |      |      | 1135 |      |     |
| Cys  | Leu  | Arg | Pro  | Asp  | Lys  | Val  | Ile  | Pro  | Met | Leu  | Gln  | Glu  | Phe  | Ile  | Ile |
|      | 1140 |     |      |      |      |      | 1145 |      |     |      | 1150 |      |      |      |     |
| Asn  | Arg  | Leu | Gly  | Arg  | Ala  | Phe  | Ile  | Glu  | Pro | Pro  | Pro  | Phe  | Asp  | Leu  | Ala |
|      | 1155 |     |      |      | 1160 |      |      |      |     |      | 1165 |      |      |      |     |
| Lys  | Ala  | Phe | Gly  | Asp  | Ser  | Asn  | Cys  | Cys  | Ala | Pro  | Leu  | Ile  | Phe  | Val  | Leu |
|      | 1170 |     |      |      | 1175 |      |      |      |     | 1180 |      |      |      |      |     |
| Ser  | Pro  | Gly | Ala  | Asp  | Pro  | Met  | Ala  | Ala  | Leu | Leu  | Lys  | Phe  | Ala  | Asp  | Asp |
| 1185 |      |     |      | 1190 |      |      |      | 1195 |     |      |      |      |      | 1200 |     |
| Gln  | Gly  | Tyr | Gly  | Gly  | Ser  | Lys  | Leu  | Ser  | Ser | Leu  | Ser  | Leu  | Gly  | Gln  | Gly |
|      |      |     | 1205 |      |      |      |      | 1210 |     |      |      |      | 1215 |      |     |
| Gln  | Gly  | Pro | Ile  | Ala  | Met  | Lys  | Met  | Leu  | Glu | Lys  | Ala  | Val  | Lys  | Glu  | Gly |
|      | 1220 |     |      |      |      |      | 1225 |      |     |      |      | 1230 |      |      |     |
| Thr  | Trp  | Val | Leu  | Gln  | Asn  | Cys  | His  | Leu  | Ala | Thr  | Ser  | Trp  | Met  | Pro  |     |
|      | 1235 |     |      |      | 1240 |      |      |      |     | 1245 |      |      |      |      |     |
| Thr  | Leu  | Glu | Lys  | Val  | Cys  | Glu  | Glu  | Leu  | Ser | Pro  | Glu  | Ser  | Thr  | His  | Pro |
|      | 1250 |     |      |      | 1255 |      |      |      |     | 1260 |      |      |      |      |     |
| Asp  | Phe  | Arg | Met  | Trp  | Leu  | Thr  | Ser  | Tyr  | Pro | Ser  | Pro  | Asn  | Phe  | Pro  | Val |
| 1265 |      |     |      | 1270 |      |      |      | 1275 |     |      |      |      |      | 1280 |     |
| Ser  | Val  | Leu | Gln  | Asn  | Gly  | Val  | Lys  | Met  | Thr | Asn  | Glu  | Ala  | Pro  | Lys  | Gly |
|      |      |     | 1285 |      |      |      |      | 1290 |     |      |      |      | 1295 |      |     |
| Leu  | Arg  | Ala | Asn  | Ile  | Ile  | Arg  | Ser  | Tyr  | Leu | Met  | Asp  | Pro  | Ile  | Ser  | Asp |
|      | 1300 |     |      |      |      | 1305 |      |      |     |      | 1310 |      |      |      |     |
| Pro  | Glu  | Phe | Phe  | Gly  | Ser  | Cys  | Lys  | Lys  | Pro | Glu  | Glu  | Phe  | Lys  | Lys  | Leu |
|      | 1315 |     |      |      |      | 1320 |      |      |     |      | 1325 |      |      |      |     |
| Leu  | Tyr  | Gly | Leu  | Cys  | Phe  | Phe  | His  | Ala  | Leu | Val  | Gln  | Glu  | Arg  | Arg  | Lys |
|      | 1330 |     |      |      | 1335 |      |      |      |     | 1340 |      |      |      |      |     |
| Phe  | Gly  | Pro | Leu  | Gly  | Trp  | Asn  | Ile  | Pro  | Tyr | Glu  | Phe  | Asn  | Glu  | Thr  | Asp |
| 1345 |      |     |      | 1350 |      |      |      | 1355 |     |      |      |      |      | 1360 |     |
| Leu  | Arg  | Ile | Ser  | Val  | Gln  | Gln  | Leu  | His  | Met | Phe  | Leu  | Asn  | Gln  | Tyr  | Glu |
|      |      |     | 1365 |      |      |      |      | 1370 |     |      |      |      | 1375 |      |     |
| Glu  | Leu  | Pro | Tyr  | Glu  | Ala  | Leu  | Arg  | Tyr  | Met | Thr  | Gly  | Glu  | Cys  | Asn  | Tyr |
|      | 1380 |     |      |      |      |      | 1385 |      |     |      |      | 1390 |      |      |     |
| Gly  | Gly  | Arg | Val  | Thr  | Asp  | Asp  | Trp  | Asp  | Arg | Arg  | Thr  | Leu  | Arg  | Ser  | Ile |
|      | 1395 |     |      |      |      | 1400 |      |      |     |      | 1405 |      |      |      |     |
| Leu  | Asn  | Lys | Phe  | Phe  | Asn  | Pro  | Glu  | Leu  | Val | Glu  | Asn  | Ser  | Asp  | Tyr  | Lys |
|      | 1410 |     |      |      | 1415 |      |      |      |     | 1420 |      |      |      |      |     |
| Phe  | Asp  | Ser | Ser  | Gly  | Ile  | Tyr  | Phe  | Val  | Pro | Pro  | Ser  | Gly  | Asp  | His  | Lys |
| 1425 |      |     |      | 1430 |      |      |      |      |     | 1435 |      |      |      | 1440 |     |

Ser Tyr Ile Glu Tyr Thr Lys Thr Leu Pro Leu Thr Pro Ala Pro Glu  
 1445 1450 1455  
 Ile Phe Gly Met Asn Ala Asn Ala Asp Ile Thr Lys Asp Gln Ser Glu  
 1460 1465 1470  
 Thr Gln Leu Leu Phe Asp Asn Ile Leu Leu Thr Gln Ser Arg Ser Ala  
 1475 1480 1485  
 Gly Ala Gly Ala Lys Ser Ser Asp Glu Val Val Asn Glu Val Ala Ser  
 1490 1495 1500  
 Asp Ile Leu Gly Lys Leu Pro Asn Asn Phe Asp Ile Glu Ala Ala Met  
 1505 1510 1515 1520  
 Arg Arg Tyr Pro Thr Thr Tyr Thr Gln Ser Met Asn Thr Val Leu Val  
 1525 1530 1535  
 Gln Glu Met Gly Arg Phe Asn Lys Leu Lys Thr Ile Arg Asp Ser  
 1540 1545 1550  
 Cys Val Asn Ile Gln Lys Ala Ile Lys Gly Leu Ala Val Met Ser Thr  
 1555 1560 1565  
 Asp Leu Glu Glu Val Val Ser Ser Ile Leu Asn Val Lys Ile Pro Glu  
 1570 1575 1580  
 Met Trp Met Gly Lys Ser Tyr Pro Ser Leu Lys Pro Leu Gly Ser Tyr  
 1585 1590 1595 1600  
 Val Asn Asp Phe Leu Ala Arg Leu Lys Phe Leu Gln Gln Trp Tyr Glu  
 1605 1610 1615  
 Val Gly Pro Pro Pro Val Phe Trp Leu Ser Gly Phe Phe Phe Thr Gln  
 1620 1625 1630  
 Ala Phe Leu Thr Gly Ala Gln Gln Asn Tyr Ala Arg Lys Tyr Thr Ile  
 1635 1640 1645  
 Pro Ile Asp Leu Leu Gly Phe Asp Tyr Glu Val Met Glu Asp Lys Glu  
 1650 1655 1660  
 Tyr Lys His Pro Pro Glu Asp Gly Val Phe Ile His Gly Leu Phe Leu  
 1665 1670 1675 1680  
 Asp Gly Ala Ser Trp Asn Arg Lys Ile Lys Lys Leu Ala Glu Ser His  
 1685 1690 1695  
 Pro Lys Ile Leu Tyr Asp Thr Val Pro Val Met Trp Leu Lys Pro Cys  
 1700 1705 1710  
 Lys Arg Ala Asp Ile Pro Lys Arg Pro Ser Tyr Val Ala Pro Leu Tyr  
 1715 1720 1725  
 Lys Thr Ser Glu Arg Arg Gly Val Leu Ser Thr Thr Gly His Ser Thr  
 1730 1735 1740  
 Asn Phe Val Ile Ala Met Thr Leu Pro Ser Asp Gln Pro Lys Glu His  
 1745 1750 1755 1760  
 Trp Ile Gly Arg Gly Val Ala Leu Leu Cys Gln Leu Asn Ser \*  
 1765 1770 1774

&lt;210&gt; 3946

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3946

Met Ala Lys Ser Lys Asn His Thr Thr His Asn Gln Ser Arg Lys Trp  
 1 5 10 15  
 His Arg Asn Gly Ile Lys Lys Pro Arg Ser Gln Arg Tyr Glu Ser Leu  
 20 25 30  
 Lys Gly Val Asp Pro Lys Phe Leu Arg Asn Met Arg Phe Ala Lys Lys  
 35 40 45  
 His Asn Lys Lys Gly Leu Lys Lys Met Gln Ala Asn Asn Ala Lys Ala  
 50 55 60  
 Met Ser Ala Arg Ala Glu Ala Ile Lys Ala Leu Val Lys Pro Lys Glu  
 65 70 75 80  
 Val Lys Pro Lys Ile Pro Lys Gly Val Ser Arg Lys Leu Asp Arg Leu  
 85 90 95

Ala Tyr Ile Ala His Pro Lys Leu Gly Lys Arg Ala Arg Ala Arg Ile  
 100 105 110  
 Ala Lys Gly Leu Arg Leu Cys Arg Pro Lys Ala Lys Ala Lys Ala Lys  
 115 120 125  
 Ala Lys Ala Lys Ala Lys Ala Gln Ala Lys Asp Gln Thr Lys Ala Gln  
 130 135 140  
 Ala Ala Ala Pro Ala Ser Val Pro Ala Gln Ala Pro Lys Arg Thr Gln  
 145 150 155 160  
 Ala Pro Thr Lys Ala Ser Glu \*  
 165 167

<210> 3947  
 <211> 762  
 <212> PRT  
 <213> Homo sapiens

<400> 3947  
 Met Ala Leu Pro Ala Leu Gly Leu Asp Pro Trp Ser Leu Leu Gly Leu  
 1 5 10 15  
 Phe Leu Phe Gln Leu Leu Gln Leu Leu Leu Pro Thr Thr Thr Ala Gly  
 20 25 30  
 Gly Gly Gly Gln Gly Pro Met Pro Arg Val Arg Tyr Tyr Ala Gly Asp  
 35 40 45  
 Glu Arg Arg Ala Leu Ser Phe Phe His Gln Lys Gly Leu Gln Asp Phe  
 50 55 60  
 Asp Thr Leu Leu Leu Ser Gly Asp Gly Asn Thr Leu Tyr Val Gly Ala  
 65 70 75 80  
 Arg Glu Ala Ile Leu Ala Leu Asp Ile Gln Asp Pro Gly Val Pro Arg  
 85 90 95  
 Leu Lys Asn Met Ile Pro Trp Pro Ala Ser Asp Arg Lys Lys Ser Glu  
 100 105 110  
 Cys Ala Phe Lys Lys Lys Ser Asn Glu Thr Gln Cys Phe Asn Phe Ile  
 115 120 125  
 Arg Val Leu Val Ser Tyr Asn Val Thr His Leu Tyr Thr Cys Gly Thr  
 130 135 140  
 Phe Ala Phe Ser Pro Ala Cys Thr Phe Ile Glu Leu Gln Asp Ser Tyr  
 145 150 155 160  
 Leu Leu Pro Ile Ser Glu Asp Lys Val Met Glu Gly Lys Gly Gln Ser  
 165 170 175  
 Pro Phe Asp Pro Ala His Lys His Thr Ala Val Leu Val Asp Gly Met  
 180 185 190  
 Leu Tyr Ser Gly Thr Met Asn Asn Phe Leu Gly Ser Glu Pro Ile Leu  
 195 200 205  
 Met Arg Thr Leu Gly Ser Gln Pro Val Leu Lys Thr Asp Asn Phe Leu  
 210 215 220  
 Arg Trp Leu His His Asp Ala Ser Phe Val Ala Ala Ile Pro Ser Thr  
 225 230 235 240  
 Gln Val Val Tyr Phe Phe Phe Glu Glu Thr Ala Ser Glu Phe Asp Phe  
 245 250 255  
 Phe Glu Arg Leu His Thr Ser Arg Val Ala Arg Val Cys Lys Asn Asp  
 260 265 270  
 Val Gly Gly Glu Lys Leu Leu Gln Lys Lys Trp Thr Thr Phe Leu Lys  
 275 280 285  
 Ala Gln Leu Leu Cys Thr Gln Pro Gly Gln Leu Pro Phe Asn Val Ile  
 290 295 300  
 Arg His Ala Val Leu Leu Pro Ala Asp Ser Pro Thr Ala Pro His Ile  
 305 310 315 320  
 Tyr Ala Val Phe Thr Ser Gln Trp Gln Val Gly Gly Thr Arg Ser Ser  
 325 330 335  
 Ala Val Cys Ala Phe Ser Leu Leu Asp Ile Glu Arg Val Phe Lys Gly  
 340 345 350

Lys Tyr Lys Glu Leu Asn Lys Glu Thr Ser Arg Trp Thr Thr Tyr Arg  
 355 360 365  
 Gly Pro Glu Thr Asn Pro Arg Pro Gly Ser Cys Ser Val Gly Pro Ser  
 370 375 380  
 Ser Asp Lys Ala Leu Thr Phe Met Lys Asp His Phe Leu Met Asp Glu  
 385 390 395 400  
 Gln Val Val Gly Thr Pro Leu Leu Val Lys Ser Gly Val Glu Tyr Thr  
 405 410 415  
 Arg Leu Ala Val Glu Thr Ala Gln Gly Leu Asp Gly His Ser His Leu  
 420 425 430  
 Val Met Tyr Leu Gly Thr Thr Thr Gly Ser Leu His Lys Ala Val Val  
 435 440 445  
 Ser Gly Asp Ser Ser Ala His Leu Val Glu Glu Ile Gln Leu Phe Pro  
 450 455 460  
 Asp Pro Glu Pro Val Arg Asn Leu Gln Leu Ala Pro Thr Gln Gly Ala  
 465 470 475 480  
 Val Phe Val Gly Phe Ser Gly Gly Val Trp Arg Val Pro Arg Ala Asn  
 485 490 495  
 Cys Ser Val Tyr Glu Ser Cys Val Asp Cys Val Leu Ala Arg Asp Pro  
 500 505 510  
 His Cys Ala Trp Asp Pro Glu Ser Arg Thr Cys Cys Leu Leu Ser Ala  
 515 520 525  
 Pro Asn Leu Asn Ser Trp Lys Gln Asp Met Glu Arg Gly Asn Pro Glu  
 530 535 540  
 Trp Ala Cys Ala Ser Gly Pro Met Ser Arg Ser Leu Arg Pro Gln Ser  
 545 550 555 560  
 Arg Pro Gln Ile Ile Lys Glu Val Leu Ala Val Pro Asn Ser Ile Leu  
 565 570 575  
 Glu Leu Pro Cys Pro His Leu Ser Ala Leu Ala Ser Tyr Tyr Trp Ser  
 580 585 590  
 His Gly Pro Ala Ala Val Pro Glu Ala Ser Ser Thr Val Tyr Asn Gly  
 595 600 605  
 Ser Leu Leu Leu Ile Val Gln Asp Gly Val Gly Gly Leu Tyr Gln Cys  
 610 615 620  
 Trp Ala Thr Glu Asn Gly Phe Ser Tyr Pro Val Ile Ser Tyr Trp Val  
 625 630 635 640  
 Asp Ser Gln Asp Gln Thr Leu Ala Leu Asp Pro Glu Leu Ala Gly Ile  
 645 650 655  
 Pro Arg Glu His Val Lys Val Pro Leu Thr Arg Val Ser Gly Gly Ala  
 660 665 670  
 Ala Leu Ala Ala Gln Gln Ser Tyr Trp Pro His Phe Val Thr Val Thr  
 675 680 685  
 Val Leu Phe Ala Leu Val Leu Ser Gly Ala Leu Ile Ile Leu Val Ala  
 690 695 700  
 Ser Pro Leu Arg Ala Leu Arg Ala Arg Gly Lys Val Gln Gly Cys Glu  
 705 710 715 720  
 Thr Leu Arg Pro Gly Glu Lys Ala Pro Leu Ser Arg Glu Gln His Leu  
 725 730 735  
 Gln Ser Pro Lys Glu Cys Arg Thr Ser Ala Ser Asp Val Asp Ala Asp  
 740 745 750  
 Asn Asn Cys Leu Gly Thr Glu Val Ala \*  
 755 760 761

&lt;210&gt; 3948

&lt;211&gt; 143

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3948

Met Ala Val Leu Leu Ala Val Ser Gly Val Val Ile Val Val Leu Ala  
 1 5 10 15

Ser Arg Ala Gly Ala Arg Cys Gln Gln Cys Pro Pro Gly Trp Val Leu  
                   20                  25                  30  
 Ser Glu Glu His Cys Tyr Tyr Phe Ser Ala Glu Ala Gln Ala Trp Glu  
                   35                  40                  45  
 Ala Ser Gln Ala Phe Cys Ser Ala Tyr His Ala Thr Leu Pro Leu Leu  
                   50                  55                  60  
 Ser His Thr Gln Asp Phe Leu Gly Arg Tyr Pro Val Ser Arg His Ser  
                   65                  70                  75                  80  
 Trp Val Gly Ala Trp Arg Gly Pro Gln Gly Trp His Trp Ile Asp Glu  
                   85                  90                  95  
 Ala Pro Leu Pro Pro Gln Leu Leu Pro Glu Asp Gly Glu Asp Asn Leu  
                   100                  105                  110  
 Asp Ile Asn Cys Gly Ala Leu Glu Gly Thr Leu Val Ala Ala Asn  
                   115                  120                  125  
 Cys Ser Thr Pro Arg Pro Trp Val Cys Ala Lys Gly Thr Gln \*  
                   130                  135                  140                  142

<210> 3949  
 <211> 1465  
 <212> DNA  
 <213> Homo sapiens

<400> 3949  
 agcccatgga ctctgggtcc ccgaaggaca tctcaggaac cccctagtgc tctactttga 60  
 gacatatgcg gtggctgggg tcactctgag aagtgtcact ttggacttgt cccttgcggt 120  
 ggggtgatgga gtcagacacc accagcagtg gatggccaag cttcaagggc accttcttag 180  
 cagctctgtg ggctgtgggc aaaagacttt cctgtttctc cttctccata ttagggaccc 240  
 agggaagtgc ttgctgcttc cagcctcgct gatggctctg aggagcaggt gatggctgtg 300  
 gcattggtga gagaaaggga cctgtcattt ccaggggtgg gtgatgctgt ggtaaaccac 360  
 acaaggtggc acttgctgc ccagcctgag atgctgtatg agggcggtga gggaaggatg 420  
 gagacgctga aggataagac cctgcaggag ctggaggagt tgcagaatga ctcgaggcgc 480  
 attgaccagc tggccctgga gtccctctgag gtccaggacc tacagctgga acgggagatg 540  
 gcactggcca ccaaccggag cctggcagag cggaacttgg agttccaggg tcccctggag 600  
 atcagccgct caaacctctc ggatagatac caggagctcc ggaagctcgt ggagcggtgc 660  
 caggagcaga aggcaaagct ggagaaattt tcttcagcac tgcagccagg gaccttgta 720  
 gaccttctgc aggtggaagg catgaagatc gaagaagagt ccgaggccat ggctgagaag 780  
 ttcctggagg gcgaggtgcc cctggaaacg ttcctggaga attttctcct catgaggatg 840  
 ctgtcccacc tgcgcggggt tcgctgtgaa aagctccagg aagtgggtgag gaagcccagg 900  
 gcttcccagg agctggccgg cgatgccctt ccaccccggt caccaccccc ggtgcgcca 960  
 gtcccccagg gaacaccccc tgtggttgaa gagcagccgc agccaccatt agccatgcct 1020  
 cctaccctt tgccctacag cccatccccc agcctgcctg tgggccccac tgcccatgga 1080  
 gccctgccac cggccctttt cccagtagtg tcccagccct ccttctacag cgggcctctg 1140  
 ggccccactt acccggcagc ccagcttgga cccaggggtg ctgcgggtta ctctggtcc 1200  
 ccacagagga gcatgccgcc cctccctatg ggttcccacc accgcggggg cctgcctggc 1260  
 ctgggtatta gacacactcc tggccctcgg cccctcccta gtcccacca cgctcaacct 1320  
 ttggcccagc catcgccgag attcgagggt caactggaag tggcggttgt gctccctgtg 1380  
 gacttgctgc ggctacgtg ccatccgctg gacgctaggt cagcgctgcc gggctcttac 1440  
 caaatgtgct tgcttctcct aagat 1465

<210> 3950  
 <211> 819  
 <212> DNA  
 <213> Homo sapiens

<400> 3950  
 tttttttttg gtggattttg taaaccatca tttactttgt ctttactttt ttttgcaaag 60  
 atagttgtgc tgccaagcaa cttgaggtaa aggcattaaa agggtagac tacaagaaat 120  
 gaaaacaaaa caattgcgat acttctata ggagaccgca caaaaagcag ttggctggtt 180



|            |             |            |            |             |             |     |
|------------|-------------|------------|------------|-------------|-------------|-----|
| tcatattgca | taatgatgct  | gtgttccttg | atgaagtaaa | caatcttcct  | tgtattaaca  | 240 |
| taaggatcag | accttggccc  | ccacacagt  | ttggtttctg | tatggctgga  | ggtgtcctta  | 300 |
| ctcaattgac | ttcactggaa  | acatacgttg | tatgtcaatt | catctttcag  | tacttcctct  | 360 |
| cagagaatat | acttggacta  | tttaagcgaa | gtacattgtg | cgtaagggtat | cttgggtgaat | 420 |
| ctgtacagcc | ttggcaagag  | cttgtggatc | tgcgccattg | ctttgtcctg  | aaacgtgact  | 480 |
| tccttcagca | ctgtcatgtt  | ctttgtccac | aagatgatat | ctggctctaa  | atgctaccag  | 540 |
| gtgagcataa | tacgctgggtg | caggtataga | aacagatcgt | gtacagcgta  | cgtaagtgtg  | 600 |
| gcagagctgg | taagtttagca | gctgaagttc | atctgcagta | aagcagttat  | catgccctct  | 660 |
| ccctgatagt | ggaagggcga  | ctgctccgct | gtattccagc | atggttcgag  | aggtaagaat  | 720 |
| ggccctccta | tgggtgtgta  | acgtcagcct | catctgttgt | tccagctggg  | atataaaaaa  | 780 |
| aaattccaac | cctttctgtc  | ctatcagcac | aaatcgaaa  |             |             | 819 |

&lt;210&gt; 3951

&lt;211&gt; 4620

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3951

|             |             |             |            |             |             |      |
|-------------|-------------|-------------|------------|-------------|-------------|------|
| tttttgccag  | tgtgttttct  | ttagtcttta  | tttatttcag | aacatttcct  | tacattttaag | 60   |
| tatgagtcac  | attaagttta  | gctgcatttg  | ctcataagta | aattcataat  | tataacttta  | 120  |
| gtcaaagtga  | tttaaacaaa  | caaaaaaaaa  | aaggtttaag | tagtaaaata  | atatgctttc  | 180  |
| tttactcagc  | cagccaacaa  | gaaataaata  | ggaacaagga | aatgatgtct  | tctgggttatg | 240  |
| aattaagttg  | acataacagt  | gctacacctc  | gtccaatcca | gtgttccttg  | ggttggtcag  | 300  |
| aggggaagagt | cattggcaat  | cacaaaattc  | gtggaatggc | cagtgggtga  | taatactcct  | 360  |
| ctccgctcac  | ttgtcttata  | caatggagca  | acataacttg | gccgttttgg  | tatatctgcc  | 420  |
| ctcttacagg  | gcttttagcca | catcacaggc  | actgtatcat | aaagaatttt  | gggatgcat   | 480  |
| tctgcaagtt  | tcttgatctt  | tctattccag  | gaagctccat | ccagaaataa  | tccgtgaatg  | 540  |
| aaaacaccat  | cctcaggagg  | atgcttgtat  | tctttgtctt | ccatcacttc  | atagtcaaac  | 600  |
| ccaagaagat  | caataggaat  | tgtgtatttc  | ctggcgtagt | tctgctgggc  | accggtcagg  | 660  |
| aaggcttgtg  | tgaagaagaa  | gccagaaagc  | cagaagactg | gaggaggacc  | aacctcatal  | 720  |
| cattgctgca  | agaatttttag | tcttgcaagg  | aagtcattca | catagctgcc  | aagtggttta  | 780  |
| aggcttgggt  | aggattttacc | catccacatt  | tctggaattt | tgacattcaa  | aatgctgcta  | 840  |
| accacttctt  | caagatctgt  | agacatgact  | gcaagccctt | tgattgcttt  | ttgaatattt  | 900  |
| acgcacgaat  | ctcttatggg  | cttcagtaac  | ttattgaacc | gtcccatctc  | ttggacaagt  | 960  |
| acagtgttca  | tgctctgagt  | ataagttggt  | gggtacctcc | tcatggcagc  | ctcgatgtcg  | 1020 |
| aagttgtttg  | gaagtttgcc  | caagatgtca  | ctagcgacct | cattcactac  | ttcatctgat  | 1080 |
| gattttgcac  | cagcacctgc  | tgaacgagac  | tgtgtaagaa | gaatgttatc  | aaatagcagc  | 1140 |
| tgagtttctg  | actgatcctt  | agtgatctct  | gcattggcat | tcatcccaaa  | gatttctggt  | 1200 |
| gctgggggtca | gtggcagagt  | ctttgtgtat  | tcatgtgagc | ttttgtgatc  | cccagaagga  | 1260 |
| ggaacaaaat  | agatgccact  | tgagtgcgaac | ttatagtctg | aattttcaac  | taattcggga  | 1320 |
| ttgaagaatt  | tgtttagaat  | gctgcgcagc  | gtgcgcgggt | cccagtcctc  | ggtcactcta  | 1380 |
| cctccgtaat  | tgcatctgcc  | agtcattgtac | cgcagagcct | catacggcag  | ttcctcatal  | 1440 |
| tggttcagga  | acatgtggag  | ttgctgtacg  | ctgattctca | gatctgtctc  | attgaactca  | 1500 |
| taaggaatat  | tccaccatag  | gggtccaaat  | ttccgtcttt | cttgtaccaa  | agcatgaaag  | 1560 |
| aaacacaggc  | cataaagcaa  | tttcttgaat  | tcctcaggct | ttttgcagct  | gccaagaagc  | 1620 |
| tccggatcag  | agatcgggtc  | catgaggtat  | gatcgaatga | tattagcccg  | taaacccttt  | 1680 |
| ggtgcttcac  | tgggtcatttt | cactccattc  | tgcagtactg | acacagggaa  | atttgagat   | 1740 |
| gggtaactcg  | ttagccacat  | tgggaaatct  | ggatgtgttg | actctgggct  | taactcctca  | 1800 |
| cagactttct  | caaggggttg  | catccaagag  | gtggcaaggt | gacaattctg  | aagaacaacc  | 1860 |
| catgttcctt  | ccttgacagc  | tttttctaac  | atcttcatag | caatgggccc  | ttggccttga  | 1920 |
| ccaagagata  | aagagctaag  | ttttgatccc  | ccatatccct | ggtcattcagc | aaattttaga  | 1980 |
| agggcagcca  | tgggatctgc  | tccaggagag  | agcacgaaaa | tcagtgggtgc | acagcagtta  | 2040 |
| ctgtctccaa  | atgccttggc  | taaatcaaag  | gggggtgggt | caatgaatgc  | acgtcccaat  | 2100 |
| ctgttgatta  | taaattcctg  | caacattgga  | ataaccttgt | ctggcctcaa  | gcaacgaata  | 2160 |
| ataagcatcc  | tttgaaactc  | atttgcttta  | tcttcccat  | cttcagggaa  | aacctcatgg  | 2220 |
| tgtggttcca  | aactatcata  | tactttcttc  | catccatcct | ttaagcgcat  | aaactctcta  | 2280 |
| cgaatggttt  | tgaaggcagg  | caaatcatct  | aatcgacata | tttcatccca  | ggatttctga  | 2340 |
| ggaagccatg  | tacaagggtt  | ggcataagga  | ttatccagtc | caatgccacc  | agtttagcaga | 2400 |
| aatctccact  | cagctttatt  | aatcgcccg   | tcatgcagca | gtagatttat  | ggttagacaa  | 2460 |
| aaggaaaaga  | gcagcttatc  | cttttcaaag  | agtgaccggc | agacattaac  | atacagtga   | 2520 |
| taagtaaagt  | gatccttgag  | aatctgaagc  | ctttttgcca | aaatttctga  | tttctctgaa  | 2580 |



|            |             |             |             |             |            |      |
|------------|-------------|-------------|-------------|-------------|------------|------|
| ttttcaatag | acaggatgaa  | aaggттаата  | aaccagggtca | gtgaatactg  | gtacatgggc | 2640 |
| tcaatgttgg | ctaaatcagc  | aagagaaaaa  | aataggatgg  | aagaatggat  | ggcaatagga | 2700 |
| cgatagccca | tgcggttggt  | gtcaatcttt  | ttctctgtct  | cttcggctac  | ttcctgcttc | 2760 |
| tgagaaatct | cattagccaa  | ggccttgag   | gaagataata  | tcttaatage  | agtttcatct | 2820 |
| tctaataat  | tgcttccga   | agatgaaaga  | acttctaaaa  | tcttgtcttc  | tatttctttt | 2880 |
| aactgccttt | tattttcagc  | tccttgtaat  | atcaaggctt  | gcttttcttc  | ttcaagggtc | 2940 |
| ggcctttctt | gtgccaccac  | aattcccaga  | agctgatctt  | gcattccctc  | aggggttatc | 3000 |
| atgaagttaa | ataatgttac  | ctttactgat  | gtttcaggaa  | gataatgagg  | atttcttaac | 3060 |
| ttggtagtaa | tatagaagcg  | gaagtcagggt | gcatattcaa  | ttgtggagtc  | cccaagccgg | 3120 |
| atacatgtac | ttccaccctg  | cttaaagggt  | tgttttagta  | gaagagggtc  | caaaatagga | 3180 |
| tctagttctt | cgccaacatt  | ttctagcaac  | acaggagtac  | caaactggat  | gcaattttcc | 3240 |
| agagtcctga | catagtcagg  | ttcactaagt  | ttaatcacat  | aaagactatt  | ggctttttcc | 3300 |
| atgttcttga | tccatttatt  | agcctgactt  | tgaggatcta  | tcatcagagg  | ccaccttctt | 3360 |
| gcattcatta | tgattatccc  | attatcaatg  | gaaaatgagt  | cagaaggtaa  | tccagcaata | 3420 |
| ttccaagtcc | gaattgtcac  | agcttctccc  | agggtagcca  | taagagagca  | atcatctgag | 3480 |
| caggggatat | ctcttccttt  | gcacaaagtt  | gtccactctt  | tagtttgatt  | ctgtctatag | 3540 |
| gtggatgtga | aggctccgag  | gtaagcaacc  | actccggagg  | aaatgaggat  | atccccagtc | 3600 |
| aagttgatgt | acagctgacc  | tagctccaga  | gctgtgtggc  | tccatcgagt  | ttctctacct | 3660 |
| ccaaggcctc | caatcaactg  | ttcagctcgt  | tctagttttt  | tgctgcaaag  | gtcaacctgg | 3720 |
| ttttccaggt | cagccttctt  | ttgtttattt  | aattcaagtg  | tgtcttgaag  | cctggccagc | 3780 |
| ttgtcctgaa | cttccttaag  | ggctgcctgc  | ttctttctaa  | gaccatccat  | ggcaatttta | 3840 |
| agctcccctt | cagctgcagc  | cagttttatc  | tttttgggag  | ctactatttt  | tgccacttta | 3900 |
| tcatatgaat | ccattgctat  | gacccatttg  | cacagacctt  | cggccgctgt  | agaagcattt | 3960 |
| ctgatttttt | ctggtacaaa  | atctggattt  | ggaatataat  | tttttcttat  | gatattcata | 4020 |
| taagctggag | gaatattgtc  | cttgctcatat | tcatgaagtg  | actgcagaaa  | cctcatgtca | 4080 |
| ccaagaagtc | tcttagctgg  | gccccagaaa  | tcctcaattt  | ttttccctga  | acctgttggg | 4140 |
| tcagggattt | tgctagcttt  | gattcctttc  | aagatgcata  | tagcttccat  | aacaagcttg | 4200 |
| acaccagcag | gaggactctt  | catggatttt  | accactgtaa  | tatcctgtgc  | agtaagagta | 4260 |
| tcaagggcgg | ccagtgtctga | ctctaataat  | ggcaaggcac  | ctgccaggtc  | agcatcgcac | 4320 |
| tcatctttga | tggttttggg  | agccatagct  | tgttcattcg  | ctattgtttc  | atcagctttc | 4380 |
| actatttttt | cagttttggc  | aacttctaca  | gactctttct  | caatcattat  | catcatttca | 4440 |
| tcaacctctt | tgctagcaac  | ttttaattga  | ggatgtagtg  | cctccaactc  | catctgcatt | 4500 |
| gtggctactt | gagatgaagc  | agaatccagt  | ttctccaaac  | ccacttcata  | tctctttttc | 4560 |
| attttcatta | cttcacttct  | tttcttttct  | aacaacagtt  | tgaagggtgga | gattaattcg | 4620 |

&lt;210&gt; 3952

&lt;211&gt; 648

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3952

|             |             |             |             |            |            |     |
|-------------|-------------|-------------|-------------|------------|------------|-----|
| tctgggttcta | ggtgcttcag  | gagctgtggc  | ttaagggtgca | gacatggcca | agtccaagaa | 60  |
| ccacaccaca  | cacaaccagt  | cccgaaaatg  | gcacagaaat  | gtcatcaaga | aaccctatc  | 120 |
| acaaagatac  | aaatctctta  | aggggggtgga | ccccagttc   | ctggggaaca | tgtgctttac | 180 |
| caagaagcac  | aagaagaagg  | gcctaaagaa  | gatgcaggcc  | gacagtgcc  | aggccgtgag | 240 |
| tacatgtgcc  | aaggctatcg  | agggcctcgt  | aaagcccaaa  | gaggttaagc | ccaagatccc | 300 |
| aaaggggtgc  | agctgtgagc  | tcaattgact  | tgcctacatt  | gcctaccca  | aattttggac | 360 |
| gtgtgcttgt  | gcctgcattg  | ccaaagggtc  | caggctgtgc  | cagccaaagg | ccaaggccca | 420 |
| ggaccaaac   | aaggcccagg  | tccaaatcaa  | ggcccaggct  | gcagctccag | cttcagttcc | 480 |
| aactcaggct  | cccaaagggtg | cccaggcccc  | tacaaaggct  | tcagggtaga | gatctctgtc | 540 |
| tgccaatatg  | aggacagaag  | gactgggggtg | acccctggg   | ctgccgtctg | catgggggtg | 600 |
| gtgtcctcct  | gtgctatttg  | tacaaataaa  | cctgaggcag  | gattcgtt   |            | 648 |

&lt;210&gt; 3953

&lt;211&gt; 1901

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3953

|             |            |             |             |            |             |      |
|-------------|------------|-------------|-------------|------------|-------------|------|
| tttttttttt  | taagccttat | attttttaata | aaaaataaac  | agtctctgac | aagcagtttt  | 60   |
| ctgaatccca  | aaacaaagga | aaagggaggg  | ggagaggtga  | aggggtcagc | tagggtaaag  | 120  |
| gagtgaagaa  | ggctcagatt | acccctgcca  | ttctgccagg  | gcagaaggga | tcagagtctg  | 180  |
| ccccaactga  | agcaagaaga | aaggtggtca  | gacttcagga  | aagacttcct | gggagtcagc  | 240  |
| cgggtgcacga | ctggtaaggg | aagcaggagg  | gagcagatcc  | ctgcatgacc | ctgggagaag  | 300  |
| ggagtgttgg  | tgtccaaagc | ggcagcttca  | gagtggagtt  | tccaggagtg | gcatgttagc  | 360  |
| atatgattgt  | ttagatgttt | ggtgttcatt  | accatagggg  | cctgggacag | gcaggttttt  | 420  |
| tagggctctct | tgaaacactg | tgtttctgga  | gggtccctgg  | aatggccaga | actgaaggat  | 480  |
| cctctccagg  | ttcttcaata | tcagtgtagg  | agcaggtctg  | ggggtagccc | ccccctgtt   | 540  |
| agagagctca  | tgtgcttggg | agaagggagt  | cccatagggg  | aggcagactg | ctgtgcatca  | 600  |
| ccctgctgag  | tgtcatcagt | gatgcagagt  | agcagaagct  | cctctcaggg | gagaaagggtg | 660  |
| gtcttttgtg  | ctgctgtcat | cctagtcagg  | gctgtgcttg  | ggcccggccc | agccagcatg  | 720  |
| gcccagggtgc | ctgcaccgca | gccccggcct  | gtgcctagag  | tttaagctac | ctcagtgccct | 780  |
| aggcagttgt  | tgtcagcgtc | cacatcactg  | gcagagggtcc | tgcattcctt | gggagactgg  | 840  |
| aggtgttgct  | ctctgcttaa | cggggccttc  | tccccagggc  | gcagggtctc | acagccctga  | 900  |
| accttgcccc  | gagcccggag | tgtctcaat   | ggggaggcca  | cgaggatgat | gagggctcct  | 960  |
| gaaagcacta  | aggcaaagag | gacagtgaca  | gtgacaaagt  | ggggccagta | ggactgctgg  | 1020 |
| gcagccaggg  | cggccccacc | actgaccctg  | gtcaacggga  | ccttcacatg | ctcccggggg  | 1080 |
| atgcctgcca  | gttcaggatc | cagggccagg  | gtctggctct  | ggctgtccac | ccagtaggag  | 1140 |
| atcacagggt  | atgaaaagcc | attctcagtt  | gcccagcact  | ggtagagacc | cccaactcca  | 1200 |
| tcctgcacta  | tcagcaagag | ggagccattg  | tagacagtgg  | aagaggcttc | tgggactgct  | 1260 |
| gctgggcat   | gactccaata | ataagaggcc  | aaggctgaca  | ggtgggggca | ggggagctcc  | 1320 |
| aggatggagt  | tagggacagc | caggacttct  | ttaatgattt  | gcgggcggct | ctgaggccga  | 1380 |
| aggctcctgc  | tcatggggcc | actggcacat  | gcccactctg  | ggttcccccg | ctccatgtcc  | 1440 |
| tgttccagg   | agttcaggtt | gggggcagac  | aggaggcaac  | aggttcggga | ctcagggtcc  | 1500 |
| caggcacagt  | gggggtcccc | ggcaaggaca  | cagtccacac  | agctctcata | gacactacag  | 1560 |
| ttggctcggg  | gcaccctcca | gacacctcct  | gagaagccta  | caaacactgc | accctgggtg  | 1620 |
| ggggccagct  | gcaggttgcg | aacaggttca  | gggtcaggga  | acagctgaat | ctcttccacc  | 1680 |
| agatgagcac  | tgtgttcccc | acttaccaca  | gccttgtgga  | gcgaccctgt | ggtgattccc  | 1740 |
| aggtacatga  | caagatgggt | gcggacgcgt  | gggcggacgc  | gtgggtcgac | cgggattccg  | 1800 |
| ggaggactac  | acgtcaaggt | ggctcttgag  | attctagtac  | tagatgcat  | aagtagatta  | 1860 |
| gtgcgaagta  | gtaataccaa | taatcataca  | taaaccgcga  | t          |             | 1901 |

&lt;210&gt; 3954

&lt;211&gt; 823

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 3954

|            |            |            |             |             |             |     |
|------------|------------|------------|-------------|-------------|-------------|-----|
| tcttatgcag | caccgagcct | gttcgtgaag | tccctgtact  | gggccctggc  | gttcatggct  | 60  |
| gtgctcctgg | cagtctctgg | ggttgtcatt | gtggtcctgg  | cctcaagagc  | aggagccaga  | 120 |
| tgccagcagt | gccccccagg | ctgggtgttg | tccgaggagc  | actgttacta  | cttctctgca  | 180 |
| gaagcgcagg | cctgggaagc | cagccaggct | ttctgctcag  | cctaccacgc  | taccctcccc  | 240 |
| ctgctaagcc | acaccagga  | cttcctgggc | agatacccag  | tctccaggca  | ctcctgggtg  | 300 |
| ggggcctggc | gaggccccca | gggtggcac  | tggatcgacg  | aggccccact  | ccgccccag   | 360 |
| ctactccctg | aggacggcga | ggacaatctg | gatatcaact  | gtggggccct  | ggaggaaggc  | 420 |
| acgctgggtg | ctgcaaactg | cagcactcca | agaccctggg  | tctgtgccaa  | ggggaccag   | 480 |
| tgatctgggc | tctgcctggg | cctcagcctg | ccaggcagat  | gcagcaccce  | ctacagggga  | 540 |
| ggccagttga | gagcttgggc | agcctcttcc | tggacccagt  | tatccagggtc | ttcatgctct  | 600 |
| gctcaagggg | gccacatgag | cgagcctagg | agctggactt  | caaccagga   | agatgcatcc  | 660 |
| gagggaaagg | agattttcta | tggcctcagg | cctgagtgcc  | aatattagtc  | tccagcttct  | 720 |
| gtggatgac  | ggtttgatga | cattgggatg | gttgttttagc | atttctgtgc  | cttgggtttca | 780 |
| ttaaaatgac | aatttcccc  | tagaggaaaa | agacagggtt  | aac         |             | 823 |

&lt;210&gt; 3955

&lt;211&gt; 346

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(345)

&lt;223&gt; Xaa = any amino acid or nothing

&lt;400&gt; 3955

```

Gly Pro Arg Glu Val Leu Ala Ala Ser Ser Leu Ala Asp Gly Ser Glu
 1 5 10 15
Glu Gln Val Met Ala Val Ala Leu Val Arg Glu Arg Asp Leu Ser Phe
 20 25 30
Pro Gly Val Gly Asp Ala Val Val Asn Pro Thr Arg Trp His Leu Pro
 35 40 45
Ala Gln Pro Glu Met Leu Tyr Glu Gly Gly Glu Gly Arg Met Glu Thr
 50 55 60
Leu Lys Asp Lys Thr Leu Gln Glu Leu Glu Glu Leu Gln Asn Asp Ser
 65 70 75 80
Glu Ala Ile Asp Gln Leu Ala Leu Glu Ser Pro Glu Val Gln Asp Leu
 85 90 95
Gln Leu Glu Arg Glu Met Ala Leu Ala Thr Asn Arg Ser Leu Ala Glu
 100 105 110
Arg Asn Leu Glu Phe Gln Gly Pro Leu Glu Ile Ser Arg Ser Asn Leu
 115 120 125
Ser Asp Arg Tyr Gln Glu Leu Arg Lys Leu Val Glu Arg Cys Gln Glu
 130 135 140
Gln Lys Ala Lys Leu Glu Lys Phe Ser Ser Ala Leu Gln Pro Gly Thr
 145 150 155 160
Leu Leu Asp Leu Leu Gln Val Glu Gly Met Lys Ile Glu Glu Glu Ser
 165 170 175
Glu Ala Met Ala Glu Lys Phe Leu Glu Gly Glu Val Pro Leu Glu Thr
 180 185 190
Phe Leu Glu Asn Phe Ser Ser Met Arg Met Leu Ser His Leu Arg Arg
 195 200 205
Val Arg Val Glu Lys Leu Gln Glu Val Val Arg Lys Pro Arg Ala Ser
 210 215 220
Gln Glu Leu Ala Gly Asp Ala Pro Pro Pro Arg Ser Pro Pro Pro Val
 225 230 235 240
Pro Pro Ser Pro Pro Gly Asn Thr Pro Cys Gly Xaa Arg Ala Ala Ala
 245 250 255
Ala Thr Ile Ser His Ala Ser Leu Pro Phe Ala Leu Gln Pro Ile Pro
 260 265 270
Gln Pro Ala Cys Gly Pro His Cys Pro Trp Ser Pro Ala Thr Gly Pro
 275 280 285
Phe Pro Ser Ser Val Pro Ala Leu Leu Leu Gln Arg Ala Ser Gly Pro
 290 295 300
His Leu Pro Gly Ser Pro Ala Trp Thr Gln Gly Cys Cys Gly Leu Leu
 305 310 315 320
Leu Val Pro Thr Glu Glu His Ala Ala Pro Pro Tyr Gly Phe Pro Pro
 325 330 335
Pro Pro Gly Pro Ala Trp Pro Gly Tyr
 340 345

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&lt;210&gt; 3956

&lt;211&gt; 147

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(145)

&lt;223&gt; Xaa = any amino acid or nothing

&lt;400&gt; 3956

```

Ser Ile Cys Ala Asp Arg Thr Glu Arg Val Gly Ile Phe Phe Tyr Ile
 1 5 10 15
Pro Ala Gly Thr Thr Asp Glu Ala Asp Val Thr His Pro Xaa Glu Gly
 20 25 30
His Ser Tyr Leu Ser Asn His Ala Gly Ile Gln Arg Ser Ser Arg Pro
 35 40 45
Ser His Tyr Gln Gly Glu Trp His Asp Asn Cys Phe Thr Ala Asp Glu
 50 55 60
Leu Gln Leu Leu Thr Tyr Gln Leu Cys His Thr Tyr Val Arg Cys Thr
 65 70 75 80
Arg Ser Val Ser Ile Pro Ala Pro Ala Tyr Tyr Ala His Leu Val Ala
 85 90 95
Phe Arg Ala Arg Tyr His Leu Val Asp Lys Glu His Asp Ser Ala Glu
 100 105 110
Gly Ser His Val Ser Gly Gln Ser Asn Gly Arg Asp Pro Gln Ala Leu
 115 120 125
Ala Lys Ala Val Gln Ile His Gln Asp Thr Leu Arg Thr Met Tyr Phe
 130 135 140
Ala
145

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&lt;210&gt; 3957

&lt;211&gt; 1461

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3957

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Glu Leu Ile Ser Thr Phe Lys Leu Leu Leu Glu Lys Lys Arg Ser Glu
 1 5 10 15
Val Met Lys Met Lys Lys Arg Tyr Glu Val Gly Leu Glu Lys Leu Asp
 20 25 30
Ser Ala Ser Ser Gln Val Ala Thr Met Gln Met Glu Leu Glu Ala Leu
 35 40 45
His Pro Gln Leu Lys Val Ala Ser Lys Glu Val Asp Glu Met Met Ile
 50 55 60
Met Ile Glu Lys Glu Ser Val Glu Val Ala Lys Thr Glu Lys Ile Val
 65 70 75 80
Lys Ala Asp Glu Thr Ile Ala Asn Glu Gln Ala Met Ala Ser Lys Ala
 85 90 95
Ile Lys Asp Glu Cys Asp Ala Asp Leu Ala Gly Ala Leu Pro Ile Leu
 100 105 110
Glu Ser Ala Leu Ala Ala Leu Asp Thr Leu Thr Ala Gln Asp Ile Thr
 115 120 125
Val Val Lys Ser Met Lys Ser Pro Pro Ala Gly Val Lys Leu Val Met
 130 135 140
Glu Ala Ile Cys Ile Leu Lys Gly Ile Lys Ala Asp Lys Ile Pro Asp
145 150 155 160
Pro Thr Gly Ser Gly Lys Lys Ile Glu Asp Phe Trp Gly Pro Ala Lys
 165 170 175
Arg Leu Leu Gly Asp Met Arg Phe Leu Gln Ser Leu His Glu Tyr Asp
 180 185 190
Lys Asp Asn Ile Pro Pro Ala Tyr Met Asn Ile Ile Arg Lys Asn Tyr
 195 200 205
Ile Pro Asn Pro Asp Phe Val Pro Glu Lys Ile Arg Asn Ala Ser Thr
 210 215 220
Ala Ala Glu Gly Leu Cys Lys Trp Val Ile Ala Met Asp Ser Tyr Asp
225 230 235 240
Lys Val Ala Lys Ile Val Ala Pro Lys Lys Ile Lys Leu Ala Ala Ala
 245 250 255
Glu Gly Glu Leu Lys Ile Ala Met Asp Gly Leu Arg Lys Lys Gln Ala

```

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ala | Leu | Lys | Glu | Val | Gln | Asp | Lys | Leu | Ala | Arg | Leu | Gln | Asp | Thr | Leu |
|     |     |     | 275 |     |     |     | 280 |     |     |     |     | 285 |     |     |     |
| Glu | Leu | Asn | Lys | Gln | Lys | Lys | Ala | Asp | Leu | Glu | Asn | Gln | Val | Asp | Leu |
|     |     | 290 |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |
| Cys | Ser | Lys | Lys | Leu | Glu | Arg | Ala | Glu | Gln | Leu | Ile | Gly | Gly | Leu | Gly |
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     | 320 |     |
| Gly | Glu | Lys | Thr | Arg | Trp | Ser | His | Thr | Ala | Leu | Glu | Leu | Gly | Gln | Leu |
|     |     |     | 325 |     |     |     |     |     | 330 |     |     |     |     | 335 |     |
| Tyr | Ile | Asn | Leu | Thr | Gly | Asp | Ile | Leu | Ile | Ser | Ser | Gly | Val | Val | Ala |
|     |     | 340 |     |     |     |     |     | 345 |     |     |     |     | 350 |     |     |
| Tyr | Leu | Gly | Ala | Phe | Thr | Ser | Thr | Tyr | Arg | Gln | Asn | Gln | Thr | Lys | Glu |
|     |     | 355 |     |     |     |     | 360 |     |     |     |     | 365 |     |     |     |
| Trp | Thr | Thr | Leu | Cys | Lys | Gly | Arg | Asp | Ile | Pro | Cys | Ser | Asp | Asp | Cys |
|     | 370 |     |     |     |     | 375 |     |     |     |     | 380 |     |     |     |     |
| Ser | Leu | Met | Gly | Thr | Leu | Gly | Glu | Ala | Val | Thr | Ile | Arg | Thr | Trp | Asn |
| 385 |     |     |     |     | 390 |     |     |     |     | 395 |     |     |     | 400 |     |
| Ile | Ala | Gly | Leu | Pro | Ser | Asp | Ser | Phe | Ser | Ile | Asp | Asn | Gly | Ile | Ile |
|     |     |     | 405 |     |     |     |     | 410 |     |     |     |     |     | 415 |     |
| Ile | Met | Asn | Ala | Arg | Arg | Trp | Pro | Leu | Met | Ile | Asp | Pro | Gln | Ser | Gln |
|     |     | 420 |     |     |     |     |     | 425 |     |     |     |     | 430 |     |     |
| Ala | Asn | Lys | Trp | Ile | Lys | Asn | Met | Glu | Lys | Ala | Asn | Ser | Leu | Tyr | Val |
|     |     | 435 |     |     |     |     | 440 |     |     |     |     | 445 |     |     |     |
| Ile | Lys | Leu | Ser | Glu | Pro | Asp | Tyr | Val | Arg | Thr | Leu | Glu | Asn | Cys | Ile |
|     | 450 |     |     |     |     | 455 |     |     |     |     | 460 |     |     |     |     |
| Gln | Phe | Gly | Thr | Pro | Val | Leu | Leu | Glu | Asn | Val | Gly | Glu | Glu | Leu | Asp |
| 465 |     |     |     |     | 470 |     |     |     |     | 475 |     |     |     | 480 |     |
| Pro | Ile | Leu | Glu | Pro | Leu | Leu | Leu | Lys | Gln | Thr | Phe | Lys | Gln | Gly | Gly |
|     |     |     | 485 |     |     |     |     | 490 |     |     |     |     |     | 495 |     |
| Ser | Thr | Cys | Ile | Arg | Leu | Gly | Asp | Ser | Thr | Ile | Glu | Tyr | Ala | Pro | Asp |
|     |     | 500 |     |     |     |     | 505 |     |     |     |     |     | 510 |     |     |
| Phe | Arg | Phe | Tyr | Ile | Thr | Thr | Lys | Leu | Arg | Asn | Pro | His | Tyr | Leu | Pro |
|     |     | 515 |     |     |     |     | 520 |     |     |     |     | 525 |     |     |     |
| Glu | Thr | Ser | Val | Lys | Val | Thr | Leu | Leu | Asn | Phe | Met | Ile | Thr | Pro | Glu |
|     | 530 |     |     |     |     | 535 |     |     |     | 540 |     |     |     |     |     |
| Gly | Met | Gln | Asp | Gln | Leu | Leu | Gly | Ile | Val | Val | Ala | Gln | Glu | Arg | Pro |
| 545 |     |     |     |     | 550 |     |     |     |     | 555 |     |     |     | 560 |     |
| Asp | Leu | Glu | Glu | Glu | Lys | Gln | Ala | Leu | Ile | Leu | Gln | Gly | Ala | Glu | Asn |
|     |     |     | 565 |     |     |     |     | 570 |     |     |     |     |     | 575 |     |
| Lys | Arg | Gln | Leu | Lys | Glu | Ile | Glu | Asp | Lys | Ile | Leu | Glu | Val | Leu | Ser |
|     |     | 580 |     |     |     |     |     | 585 |     |     |     |     | 590 |     |     |
| Ser | Ser | Glu | Gly | Asn | Ile | Leu | Glu | Asp | Glu | Thr | Ala | Ile | Lys | Ile | Leu |
|     |     | 595 |     |     |     |     | 600 |     |     |     |     | 605 |     |     |     |
| Ser | Ser | Ser | Lys | Ala | Leu | Ala | Asn | Glu | Ile | Ser | Gln | Lys | Gln | Glu | Val |
|     | 610 |     |     |     |     | 615 |     |     |     |     |     | 620 |     |     |     |
| Ala | Glu | Glu | Thr | Glu | Lys | Lys | Ile | Asp | Thr | Thr | Arg | Met | Gly | Tyr | Arg |
| 625 |     |     |     |     | 630 |     |     |     |     | 635 |     |     |     | 640 |     |
| Pro | Ile | Ala | Ile | His | Ser | Ser | Ile | Leu | Phe | Phe | Ser | Leu | Ala | Asp | Leu |
|     |     |     | 645 |     |     |     |     | 650 |     |     |     |     |     | 655 |     |
| Ala | Asn | Ile | Glu | Pro | Met | Tyr | Gln | Tyr | Ser | Leu | Thr | Trp | Phe | Ile | Asn |
|     |     | 660 |     |     |     |     |     | 665 |     |     |     |     | 670 |     |     |
| Leu | Phe | Ile | Leu | Ser | Ile | Glu | Asn | Ser | Glu | Lys | Ser | Glu | Ile | Leu | Ala |
|     |     | 675 |     |     |     |     | 680 |     |     |     |     | 685 |     |     |     |
| Lys | Arg | Leu | Gln | Ile | Leu | Lys | Asp | His | Phe | Thr | Tyr | Ser | Leu | Tyr | Val |
|     | 690 |     |     |     |     | 695 |     |     |     |     | 700 |     |     |     |     |
| Asn | Val | Cys | Arg | Ser | Leu | Phe | Glu | Lys | Asp | Lys | Leu | Leu | Phe | Ser | Phe |
| 705 |     |     |     |     | 710 |     |     |     |     | 715 |     |     |     | 720 |     |
| Cys | Leu | Thr | Ile | Asn | Leu | Leu | Leu | His | Glu | Arg | Ala | Ile | Asn | Lys | Ala |
|     |     |     | 725 |     |     |     |     | 730 |     |     |     |     |     | 735 |     |
| Glu | Trp | Arg | Phe | Leu | Leu | Thr | Gly | Gly | Ile | Gly | Leu | Asp | Asn | Pro | Tyr |
|     |     | 740 |     |     |     |     | 745 |     |     |     |     | 750 |     |     |     |
| Ala | Asn | Pro | Cys | Thr | Trp | Leu | Pro | Gln | Lys | Ser | Trp | Asp | Glu | Ile | Cys |
|     | 755 |     |     |     |     | 760 |     |     |     |     |     | 765 |     |     |     |
| Arg | Leu | Asp | Asp | Leu | Pro | Ala | Phe | Lys | Thr | Ile | Arg | Arg | Glu | Phe | Met |



|                         |                     |                     |
|-------------------------|---------------------|---------------------|
| 770                     | 775                 | 780                 |
| Arg Leu Lys Asp Gly Trp | Lys Lys Val Tyr Asp | Ser Leu Glu Pro His |
| 785                     | 790                 | 795                 |
| His Glu Val Phe Pro Glu | Glu Trp Glu Asp Lys | Ala Asn Glu Phe Gln |
| 805                     | 810                 | 815                 |
| Arg Met Leu Ile Ile Arg | Cys Leu Arg Pro Asp | Lys Val Ile Pro Met |
| 820                     | 825                 | 830                 |
| Leu Gln Glu Phe Ile Ile | Asn Arg Leu Gly Arg | Ala Phe Ile Glu Pro |
| 835                     | 840                 | 845                 |
| Pro Pro Phe Asp Leu Ala | Lys Ala Phe Gly Asp | Ser Asn Cys Cys Ala |
| 850                     | 855                 | 860                 |
| Pro Leu Ile Phe Val Leu | Ser Pro Gly Ala Asp | Pro Met Ala Ala Leu |
| 865                     | 870                 | 875                 |
| Leu Lys Phe Ala Asp Asp | Gln Gly Tyr Gly Gly | Ser Lys Leu Ser Ser |
| 885                     | 890                 | 895                 |
| Leu Ser Leu Gly Gln Gly | Gln Gly Pro Ile Ala | Met Lys Met Leu Glu |
| 900                     | 905                 | 910                 |
| Lys Ala Val Lys Glu Gly | Thr Trp Val Val Leu | Gln Asn Cys His Leu |
| 915                     | 920                 | 925                 |
| Ala Thr Ser Trp Met Pro | Thr Leu Glu Lys Val | Cys Glu Glu Leu Ser |
| 930                     | 935                 | 940                 |
| Pro Glu Ser Thr His Pro | Asp Phe Arg Met Trp | Leu Thr Ser Tyr Pro |
| 945                     | 950                 | 955                 |
| Ser Pro Asn Phe Pro Val | Ser Val Leu Gln Asn | Gly Val Lys Met Thr |
| 965                     | 970                 | 975                 |
| Asn Glu Ala Pro Lys Gly | Leu Arg Ala Asn Ile | Ile Arg Ser Tyr Leu |
| 980                     | 985                 | 990                 |
| Met Asp Pro Ile Ser Asp | Pro Glu Phe Phe Gly | Ser Cys Lys Lys Pro |
| 995                     | 1000                | 1005                |
| Glu Glu Phe Lys Lys Leu | Leu Tyr Gly Leu Cys | Phe Phe His Ala Leu |
| 1010                    | 1015                | 1020                |
| Val Gln Glu Arg Arg Lys | Phe Gly Pro Leu Trp | Trp Asn Ile Pro Tyr |
| 1025                    | 1030                | 1035                |
| Glu Phe Asn Glu Thr Asp | Leu Arg Ile Ser Val | Gln Gln Leu His Met |
| 1045                    | 1050                | 1055                |
| Phe Leu Asn Gln Tyr Glu | Glu Leu Pro Tyr Glu | Ala Leu Arg Tyr Met |
| 1060                    | 1065                | 1070                |
| Thr Gly Glu Cys Asn Tyr | Gly Gly Arg Val Thr | Asp Asp Trp Asp Arg |
| 1075                    | 1080                | 1085                |
| Arg Thr Leu Arg Ser Ile | Leu Asn Lys Phe Phe | Asn Pro Glu Leu Val |
| 1090                    | 1095                | 1100                |
| Glu Asn Ser Asp Tyr Lys | Phe Asp Ser Ser Gly | Ile Tyr Phe Val Pro |
| 1105                    | 1110                | 1115                |
| Pro Ser Gly Asp His Lys | Ser Tyr Ile Glu Tyr | Thr Lys Thr Leu Pro |
| 1125                    | 1130                | 1135                |
| Leu Thr Pro Ala Pro Glu | Ile Phe Gly Met Asn | Ala Asn Ala Asp Ile |
| 1140                    | 1145                | 1150                |
| Thr Lys Asp Gln Ser Glu | Thr Gln Leu Leu Phe | Asp Asn Ile Leu Leu |
| 1155                    | 1160                | 1165                |
| Thr Gln Ser Arg Ser Ala | Gly Ala Gly Ala Lys | Ser Ser Asp Glu Val |
| 1170                    | 1175                | 1180                |
| Val Asn Glu Val Ala Ser | Asp Ile Leu Gly Lys | Leu Pro Asn Asn Phe |
| 1185                    | 1190                | 1195                |
| Asp Ile Glu Ala Ala Met | Arg Arg Tyr Pro Thr | Thr Tyr Thr Gln Ser |
| 1205                    | 1210                | 1215                |
| Met Asn Thr Val Leu Val | Gln Glu Met Gly Arg | Phe Asn Lys Leu Leu |
| 1220                    | 1225                | 1230                |
| Lys Thr Ile Arg Asp Ser | Cys Val Asn Ile Gln | Lys Ala Ile Lys Gly |
| 1235                    | 1240                | 1245                |
| Leu Ala Val Met Ser Thr | Asp Leu Glu Glu Val | Val Ser Ser Ile Leu |
| 1250                    | 1255                | 1260                |
| Asn Val Lys Ile Pro Glu | Met Trp Met Gly Lys | Ser Tyr Pro Ser Leu |
| 1265                    | 1270                | 1275                |
| Lys Pro Leu Gly Ser Tyr | Val Asn Asp Phe Leu | Ala Arg Leu Lys Phe |



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1285 1290 1295
Leu Gln Gln Trp Tyr Glu Val Gly Pro Pro Pro Val Phe Trp Leu Ser
1300 1305 1310
Gly Phe Phe Phe Thr Gln Ala Phe Leu Thr Gly Ala Gln Gln Asn Tyr
1315 1320 1325
Ala Arg Lys Tyr Thr Ile Pro Ile Asp Leu Leu Gly Phe Asp Tyr Glu
1330 1335 1340
Val Met Glu Asp Lys Glu Tyr Lys His Pro Pro Glu Asp Gly Val Phe
1345 1350 1355 1360
Ile His Gly Leu Phe Leu Asp Gly Ala Ser Trp Asn Arg Lys Ile Lys
1365 1370 1375
Lys Leu Ala Glu Ser His Pro Lys Ile Leu Tyr Asp Thr Val Pro Val
1380 1385 1390
Met Trp Leu Lys Pro Cys Lys Arg Ala Asp Ile Pro Lys Arg Pro Ser
1395 1400 1405
Tyr Val Ala Pro Leu Tyr Lys Thr Ser Glu Arg Arg Gly Val Leu Ser
1410 1415 1420
Thr Thr Gly His Ser Thr Asn Phe Val Ile Ala Met Thr Leu Pro Ser
1425 1430 1435 1440
Asp Gln Pro Lys Glu His Trp Ile Gly Arg Gly Val Ala Leu Leu Cys
1445 1450 1455
Gln Leu Asn Ser
1460

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&lt;210&gt; 3958

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;221&gt; misc\_feature

&lt;222&gt; (1)...(164)

&lt;223&gt; Xaa = any amino acid or nothing

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<400> 3958
Gly Ala Asp Met Ala Lys Ser Lys Asn His Thr Thr His Asn Gln Ser
1 5 10 15
Arg Lys Trp His Arg Asn Val Ile Lys Lys Pro Leu Ser Gln Arg Tyr
20 25 30
Lys Ser Leu Lys Gly Val Asp Pro Lys Phe Leu Gly Asn Met Cys Phe
35 40 45
Thr Lys Lys His Lys Lys Lys Gly Leu Lys Lys Met Gln Ala Asp Ser
50 55 60
Ala Lys Ala Val Ser Thr Cys Ala Lys Ala Ile Glu Ala Leu Val Lys
65 70 75 80
Pro Lys Glu Val Lys Pro Lys Ile Pro Lys Gly Val Ser Cys Glu Leu
85 90 95
Asn Xaa Leu Ala Tyr Ile Ala Tyr Pro Lys Phe Trp Thr Cys Ala Cys
100 105 110
Ala Cys Ile Ala Lys Gly Leu Arg Leu Cys Gln Pro Lys Ala Lys Ala
115 120 125
Gln Asp Gln Thr Lys Ala Gln Val Gln Ile Lys Ala Gln Ala Ala Ala
130 135 140
Pro Ala Ser Val Pro Thr Gln Ala Pro Lys Gly Ala Gln Ala Pro Thr
145 150 155 160
Lys Ala Ser Gly
164

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&lt;210&gt; 3959

&lt;211&gt; 373

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3959

```

Leu Leu Val Leu Leu Leu Arg Thr Asn Leu Leu Ile Ala Ser Ser Thr
 1 5 10 15
Arg Ile Ser Arg Ala Thr Leu Thr Cys Ser Pro Pro Gly Ile Pro Val
 20 25 30
Asp Pro Arg Val Arg Pro Arg Val Arg Ser His Leu Val Met Tyr Leu
 35 40 45
Gly Ile Thr Thr Gly Ser Leu His Lys Ala Val Val Ser Gly Asp Ser
 50 55 60
Ser Ala His Leu Val Glu Glu Ile Gln Leu Phe Pro Asp Pro Glu Pro
 65 70 75 80
Val Arg Asn Leu Gln Leu Ala Pro Thr Gln Gly Ala Val Phe Val Gly
 85 90 95
Phe Ser Gly Gly Val Trp Arg Val Pro Arg Ala Asn Cys Ser Val Tyr
 100 105 110
Glu Ser Cys Val Asp Cys Val Leu Ala Arg Asp Pro His Cys Ala Trp
 115 120 125
Asp Pro Glu Ser Arg Thr Cys Cys Leu Leu Ser Ala Pro Asn Leu Asn
 130 135 140
Ser Trp Lys Gln Asp Met Glu Arg Gly Asn Pro Glu Trp Ala Cys Ala
 145 150 155 160
Ser Gly Pro Met Ser Arg Ser Leu Arg Pro Gln Ser Arg Pro Gln Ile
 165 170 175
Ile Lys Glu Val Leu Ala Val Pro Asn Ser Ile Leu Glu Leu Pro Cys
 180 185 190
Pro His Leu Ser Ala Leu Ala Ser Tyr Tyr Trp Ser His Gly Pro Ala
 195 200 205
Ala Val Pro Glu Ala Ser Ser Thr Val Tyr Asn Gly Ser Leu Leu Leu
 210 215 220
Ile Val Gln Asp Gly Val Gly Gly Leu Tyr Gln Cys Trp Ala Thr Glu
 225 230 235 240
Asn Gly Phe Ser Tyr Pro Val Ile Ser Tyr Trp Val Asp Ser Gln Asp
 245 250 255
Gln Thr Leu Ala Leu Asp Pro Glu Leu Ala Gly Ile Pro Arg Glu His
 260 265 270
Val Lys Val Pro Leu Thr Arg Val Ser Gly Gly Ala Ala Leu Ala Ala
 275 280 285
Gln Gln Ser Tyr Trp Pro His Phe Val Thr Val Thr Val Leu Phe Ala
 290 295 300
Leu Val Leu Ser Gly Ala Leu Ile Ile Leu Val Ala Ser Pro Leu Arg
 305 310 315 320
Ala Leu Arg Ala Arg Gly Lys Val Gln Gly Cys Glu Thr Leu Arg Pro
 325 330 335
Gly Glu Lys Ala Pro Leu Ser Arg Glu Gln His Leu Gln Ser Pro Lys
 340 345 350
Glu Cys Arg Thr Ser Ala Ser Asp Val Asp Ala Asp Asn Asn Cys Leu
 355 360 365
Gly Thr Glu Val Ala
 370 373

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&lt;210&gt; 3960

&lt;211&gt; 160

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 3960

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Ser Tyr Ala Ala Pro Ser Leu Phe Val Lys Ser Leu Tyr Trp Ala Leu

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|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |  |  |
| Ala | Phe | Met | Ala | Val | Leu | Leu | Ala | Val | Ser | Gly | Val | Val | Ile | Val | Val |  |  |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     |     | 30  |     |  |  |
| Leu | Ala | Ser | Arg | Ala | Gly | Ala | Arg | Cys | Gln | Gln | Cys | Pro | Pro | Gly | Trp |  |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     |     | 45  |     |     |  |  |
| Val | Leu | Ser | Glu | Glu | His | Cys | Tyr | Tyr | Phe | Ser | Ala | Glu | Ala | Gln | Ala |  |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |  |
| Trp | Glu | Ala | Ser | Gln | Ala | Phe | Cys | Ser | Ala | Tyr | His | Ala | Thr | Leu | Pro |  |  |
| 65  |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |     |  |  |
| Leu | Leu | Ser | His | Thr | Gln | Asp | Phe | Leu | Gly | Arg | Tyr | Pro | Val | Ser | Arg |  |  |
|     |     |     | 85  |     |     |     |     |     | 90  |     |     |     |     | 95  |     |  |  |
| His | Ser | Trp | Val | Gly | Ala | Trp | Arg | Gly | Pro | Gln | Gly | Trp | His | Trp | Ile |  |  |
|     |     | 100 |     |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |  |
| Asp | Glu | Ala | Pro | Leu | Pro | Pro | Gln | Leu | Leu | Pro | Glu | Asp | Gly | Glu | Asp |  |  |
|     | 115 |     |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |  |
| Asn | Leu | Asp | Ile | Asn | Cys | Gly | Ala | Leu | Glu | Glu | Gly | Thr | Leu | Val | Ala |  |  |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |  |
| Ala | Asn | Cys | Ser | Thr | Pro | Arg | Pro | Trp | Val | Cys | Ala | Lys | Gly | Thr | Gln |  |  |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |  |  |